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A ROOM IN THE PALACE

Prague: The Palace-Fortress of Hradcany

By SELWYN BRINTON, M. A.

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THE glory of old Prague, that which gives its individual charm to the old capital of Bohemia, is the old time Royal Castle, the Palace-Fortress of Hradcany, which, like the Alhambra at Granada, dominates the city, and goes back to its earliest days. It is true that Prague possesses many other palaces, churches and towers of interest—such as those grand towers which guard at either end the great bridge of Charles IV, covered like the Ponte Sant'Angelo at Rome, with groups at intervals of Baroque sculpture, such as the Powder Tower, or Gate, the last survivor of the eight great gates to the city—such as the old Town Hall with its Gothic entrance, or the neighboring Tyn Church, with noble Gothic doorway, which became till 1621 the church of the Utraquists.

But from all other parts of the city our eyes wander back to this grand old castle, the Kremlin of Prague, with which, I think appropriately, I commence my account of the architecture of old Prague. For here was the seat of the Premsyl and later

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dynasties, and this Royal Castle still expresses the idea of the Bohemian State. Neglected during the later years of the Kaiser Francis-Joseph it is now being put thoroughly in order as the residence of the President of the new Republic. Some idea of the extent of this old palace may be given by the mere statement that it contains 711 apartments, several of which are vast halls, such as the gigantic Vladislay Hall, in which tournaments used to be held, and the still grander Spanish Hall, 48 meters long by 24 meters wide, a great state reception room, whose effect is superb.

Already in the nineteenth century the castle existed under Prince Boriskov and its fortifications were strengthened by Wencslausl and Ottokard, but it was to the greatest ruler of Bohemia, Charles IV, that it owed its completion. Charles was the son of that romantic knight-errant monarch King John of Bohemia, who ended his career by a brave but useless charge against our English knights under the Black Prince at Crécy. Edward III of England honored the blind king's heroism, and appreciated the high qualities of his son, standing aside when this latter advanced his claim to be Emperor of the Romans; and the accession of Charles IV to the throne of Bohemia, as Count Lurzow points out, "marks the beginning of a new period in the history of the country."

It was in this monarch's reign that some of the finest monuments of mediaeval architecture, which still remain at Prague came into existence. When Charles I arrived in Prague he had found the Royal Castle, the Hradcany, as he himself noted "deserted, ruined, almost levelled to the ground." He at once decided to rebuild the castle, fortifying it very strongly in the direction of Malá Strana, where the steep approach still shows evidence of his fortifications. To this great ruler was also due the magnificent bridge, still called by his name which I have mentioned, with its grand guarding towers at either end—though, of course, the statuary which adorns it belongs to a later epoch, that of the early eighteenth century. To form some idea of the extent of the Hradcany itself, I may mention that besides the vast palace the enclosure contained a cathedral, several churches, a monastery, besides the walls and great flanking tower set at the angles, which were at the same time both for tresses and prisons. I was told by the architect in charge of the restoration works, who kindly placed his services at my disposal, that there were 22 of these towers in the old time, of which 4 are still remaining: The prisons, into which their ill-fated occupants seem to have been introduced by a hole in the floor, are among the most frightful I have ever seen, not excepting those of the Castello Rosso at Ferrara and the Castel Sant'Angelo at Rome.

The oldest church upon Hradcany is that of St. George, which is Romanesque in style, and goes back to the tenth century. The cathedral, dedicated to St. Vitus, is Gothic, its foundations having been laid by King Charles IV in the middle of the fourteenth century. It is a noble structure, the lofty vaulting being especially fine, but has suffered terribly in those religious wars which were the bane of Bohemia, and one-half of the building practically ceased to exist. This is now being restored, the funds having been, as I understand, provided entirely by public subscription without aid from the Imperial Treasury. The work is now well advanced, and I was able to examine it in detail with the architect in charge, going on to the roof, from which a marvellous view of the city is obtained; when it is completed the temporary wall now existing in the center will be removed, and the full vista of this magnificient Gothic building will be unimpeded.

The existing interior in the principal nave is very rich in monuments notably in the shrine of St. John Nepoinote with its silver figures of saints and angels weighing 3,700 pounds, which I shall return to when speaking later of the Baroque art of Prague; the tomb of Charles IV, with his wives and successors, and the famous chapel of St. Wenceslaus, divided from the main building by a heavy door, with a bronze lion's head which tradition relates that the saint took hold of when he was being martyred in the year 935. Incidentally, I may remark that it was a satisfaction to come back to saints one had long known by name, such as St. Vitus—whose method of martyrdom brought his name into modern medical science, as I believe—and St. Wenceslaus, whom I had hitherto associated with a delightful Christmas carol. St. George, too, seems to have been cherished in Prague, for as I have mentioned the earliest surviving church on Hradcany is dedicated to him; and his mounted figure, triumphant over the dragon, faces the entrance of the palace, while his street leads with a slight gradient to the Loebkowitz Place, which forms part of the fortified hill adjacent to the Black Tower, and which I was permitted by the kindness of the Prince to visit, and to admire his fine tapestries and wonderful library.

When we had finished sight seeing it was delightful to go out on the ramparts, as I did with the courteous administrator of the castle, and see the old city stretching at our feet, with the blue-green cupola of St. Nicholas in the foreground. This church belongs to the Baroque city, which I reserve for a special notice; as the beautiful Casino of the Belvedere, built in 1539-60 for Ferdinand I by the Italians de Spatio and Paolo della Stella does to the preceding Renaissance, of which it is one of the

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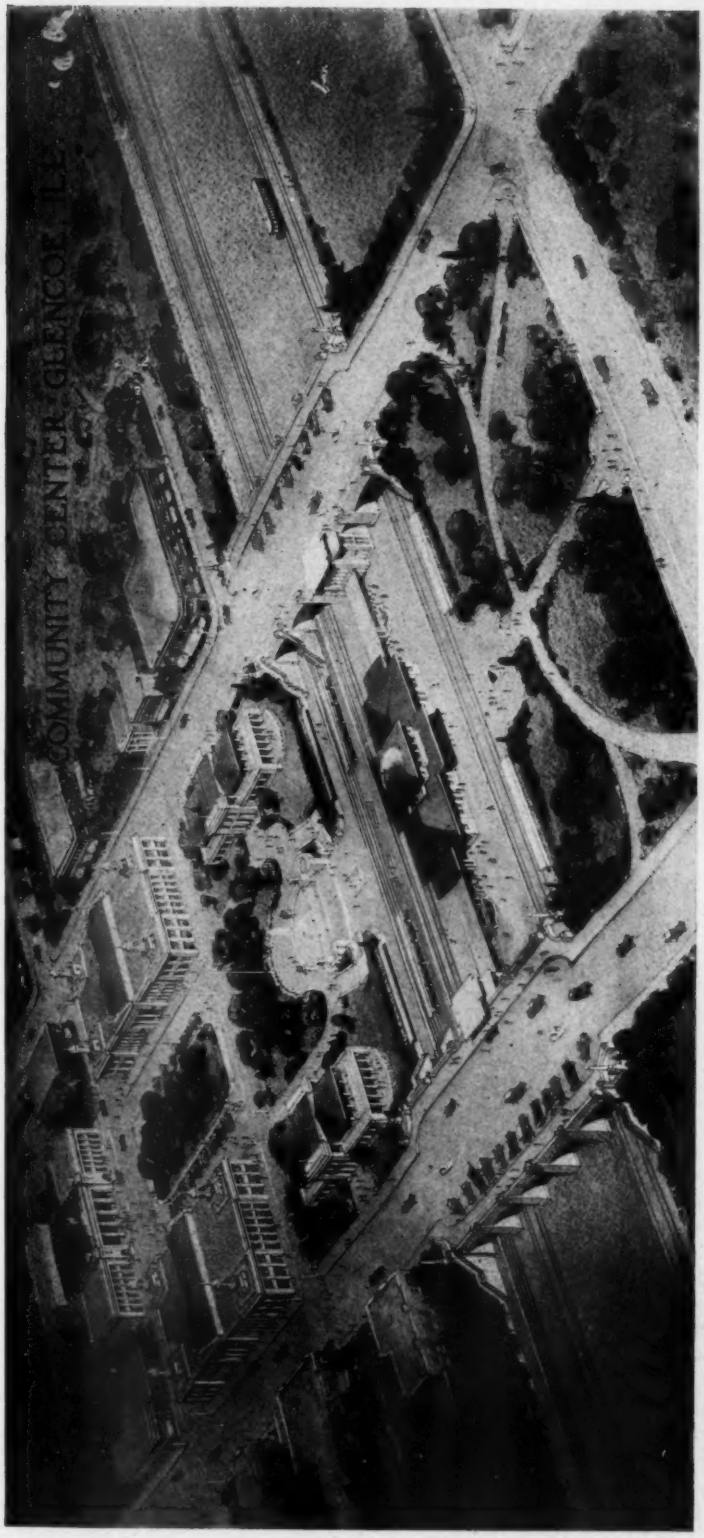

COMMUNITY CENTER, GLENCOE, ILLINOIS
GEORGE W. MAHER, *ARCHITECT*

purest specimens. But it is within Hradcany that the old historic life of Prague, with its racial problems and intense religious feuds, seems to center; it is there that the old spirit comes near to us, and from this starting point I propose to approach the mediaeval city.

Community Center Developments

The North Shore Suburbs of Chicago

THE character of a suburban community is determined by three things: the lay of the land; the inhabitants, and transportation. After all it is transportation that locates the homes of the majority of the people who are so situated that they have the power of choice. Good transportation provides frequent, fast and comfortable service with conveniently located terminal facilities. The lay of the land should be such that good drainage, forestry, attractive vistas and other things that please are present. An absence of dismal, disease or pest breeding places is essential. Everything that enters into a suitable lay of the land is of nature's handiwork. To this the efforts of man add those things of beauty, adornment and convenience. The character of the inhabitants depends upon whether the community is devoted to business and manufacturing or is purely residential.

Chicago's North Shore is served by good transportation, as above defined. The Chicago and Northwestern Railroad and the Chicago, North Shore and Milwaukee Road (electric) meet every requirement of through and local service. From Winnetka north the land lies at a considerable elevation above Lake Michigan, with bluffs along the shore. Inland about two miles or more is the Skokie Valley, and about six miles from the lake is the Des Plaines River Valley. Large tracts of land in these two valleys have been and will be acquired by the Cook County Forest Reserve Commission. These tracts will be dedicated to the public use for park purposes. Every natural advantage that makes a healthy community is present.

Evanston has well developed business with no manufacturing interests. Between that city and North Chicago there is no manufacturing. North Chicago is purely a manufacturing city; Waukegan is both a manufacturing and residential city. The twenty-one miles from Evanston to North Chicago are devoted entirely to residential purposes. Some of the suburban towns in this district have taken steps to control the growth of the small business centers which such communities require. Of these, the proposed developments of Winnetka and Glencoe are illustrated.

Winnetka is 17 miles north of the center of Chicago, has a lake frontage of 2½ miles, 2,300 acres within its corporate limits and a population of 6,000. For the Winnetka Plan Commission Edward H. Burnett and William E. Parsons, of Chicago, developed plans for the preservation of this suburban community from unrestricted development. The combined transportation service, steam and electric, consists of 382 trains per day, with eleven grade crossings.

The noise and danger can only be eliminated by grade separation and this may be accomplished by elevation or depression. The latter is favored, as it better accomplishes the desired result, while elevation would form a dividing wall throughout the length of the town. Not only does track depression greatly reduce the noise, but it offers, where sufficient ground is available, an opportunity for sloping banks, which may be made very attractive.

The passenger station is really the heart of such suburban communities. Through it flows the current of the human tide and its surroundings should be indicative of the character of the inhabitants. It should have an attractive setting to arrive at and depart from. Recognizing this fact, the plan calls for a station spanning the depressed tracks, surrounded by adequate open spaces and roadways.

WINNETKA has quite a large business section adjoining the station which has no particular architectural merit. It is proposed to provide a Village Hall immediately west of the station, facing a small triangular track. This hall is located in the center of a business block and immediately back of it is located a field through the center of the block. The rear of the adjacent store buildings will be screened by walls, trees and trellis work. The central feature of the proposed community center is to be located in the block immediately contiguous to and part of the business section. The

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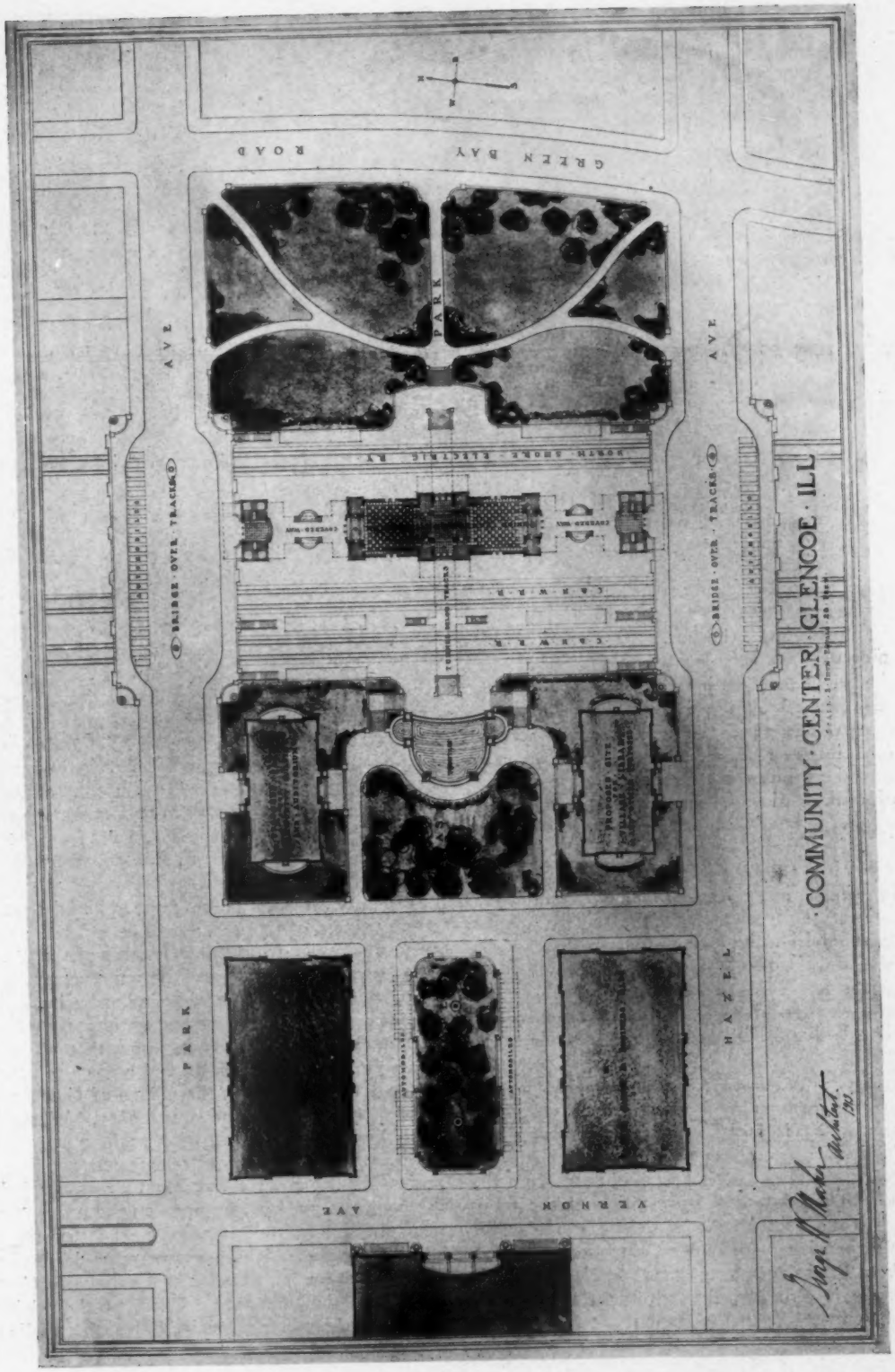

COMMUNITY · CENTER · GLENCOE · ILL
GREEN BAY ROAD
PARK AVE
VERNON AVE
HAZEL
PARK
BRIDGE · OVER · TRACKS
BRIDGE · OVER · TRACKS
NORTH SHORE ELECTRIC RY
C & W.R.R.
PROPOSED SITE
Jens Jensen
landscape architect
1921

center portion of a business block containing small store buildings is invariably an unattractive place. The improvement of such spaces in the manner here suggested will transform them and probably to the financial advantage of the adjoining property. It presents a most interesting problem for the consideration of those who plan community developments.

The main road to the Lake County and Wisconsin resorts is Sheridan Road, which passes through this district. A recent count showed that 6,000 automobiles passed through one of Winnetka's residence streets in one day. This, of course, constitutes an intolerable nuisance. In order to relieve these North Shore towns from this nuisance it is proposed to construct new roads as indicated on the diagram of highways. These will originate in the northwestern part of Chicago and connect with the Sheridan Road at Wilmette. By cut-offs as indicated, the through automobile traffic will be diverted to the Telegraph and Milwaukee roads, which pass through farming communities. These highways, for the most part, exist, and with improvements, cut-offs and needed links, can be made to relieve the existing conditions.

The acquisition of grounds for parks is a part of the plan as well as the development of the waterfront by providing a harbor, lagoons and beaches. A zoning plan has been prepared and will undoubtedly be adopted as authorized by the zoning law recently enacted by the Illinois legislature. The plan segregates residence and business sections, and factories are to be excluded. Special areas adjacent to the railroad are to be devoted to the storage of coal, food supplies and building materials. Laundries, garages and greenhouses will be provided for in special areas. Residential areas will be divided into several classes; one for group house; one for single family houses, including large areas at considerable distances from the railroad station, where subdivision into small lots would be discouraged and if possible prevented. A minimum of 50 feet for each lot is proposed.

Study was also given to the subordinate stations at Indian Hill and Hubbard Woods.

GEORGE W. MAHER has prepared a plan for a community center for the village of Glencoe, which is located between Winnetka and Highland Park. In this case the railroad situation is the same, and it is proposed to depress the tracks with a joint passenger station at the track level. Broad bridges will span the tracks, with space for parking automobiles. Enclosed stairways lead from the bridges to the track level. Access to the tracks is also had through tunnels from the parks at either side of the station.

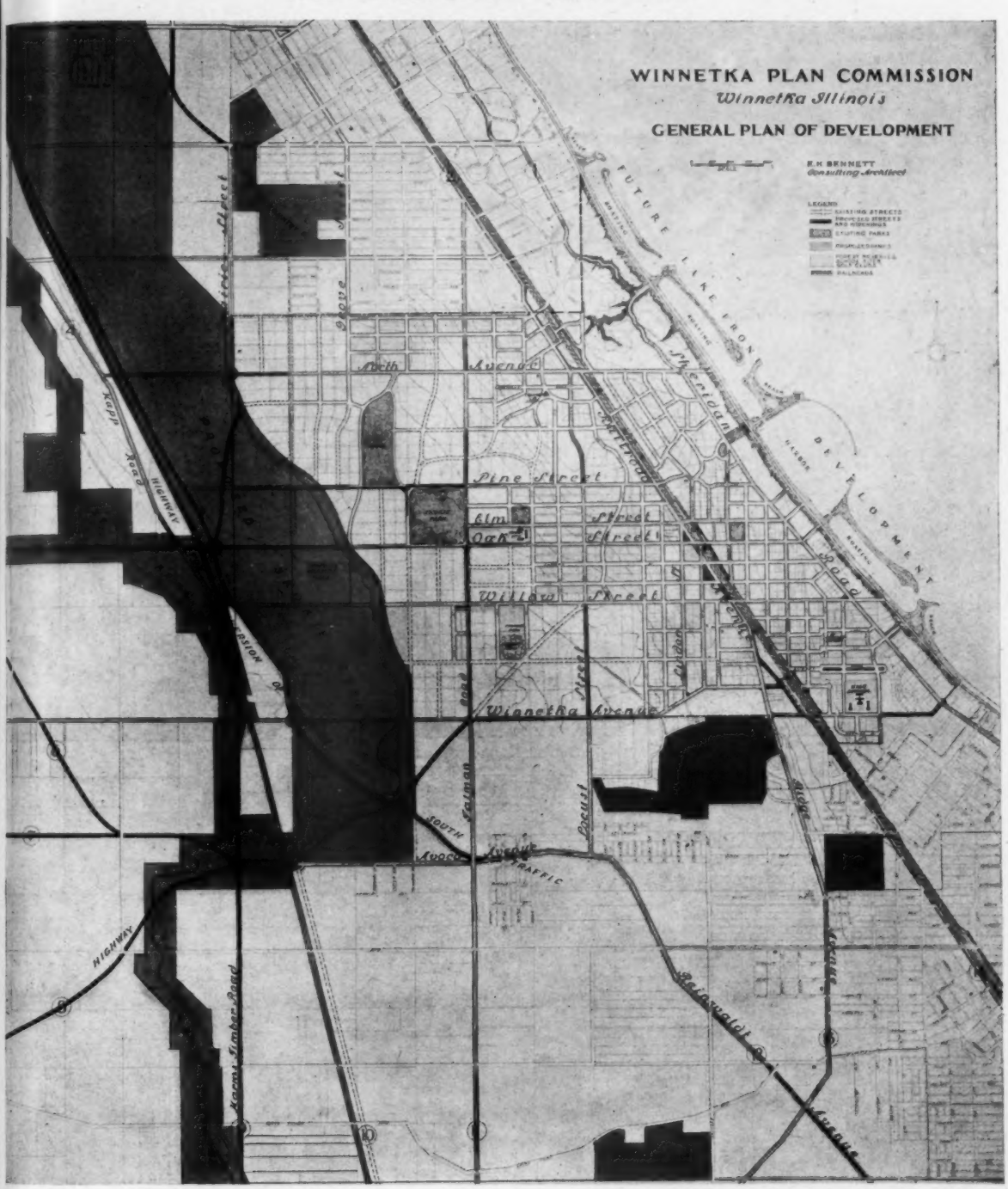
On the east side of the station, between it and Green Bay Road, a park will slope down to the track level. This park will have walks only. There will be no business buildings whatever east of the railroad. But few business buildings now exist west of the railroad and these are easily recognized in the perspective.

In making this plan, Mr. Maher was not handicapped, as in the case of Winnetka, by a considerable existing business community. He has set aside sites for stores and shops sufficient to serve the territory within the village limits. Provision is also made for community and amusement buildings. With rare skill, transportation, business, municipal government and amusements have been placed in juxtaposition with a complete harmony; over all a spell of beauty which makes it desirable and therefore valuable.

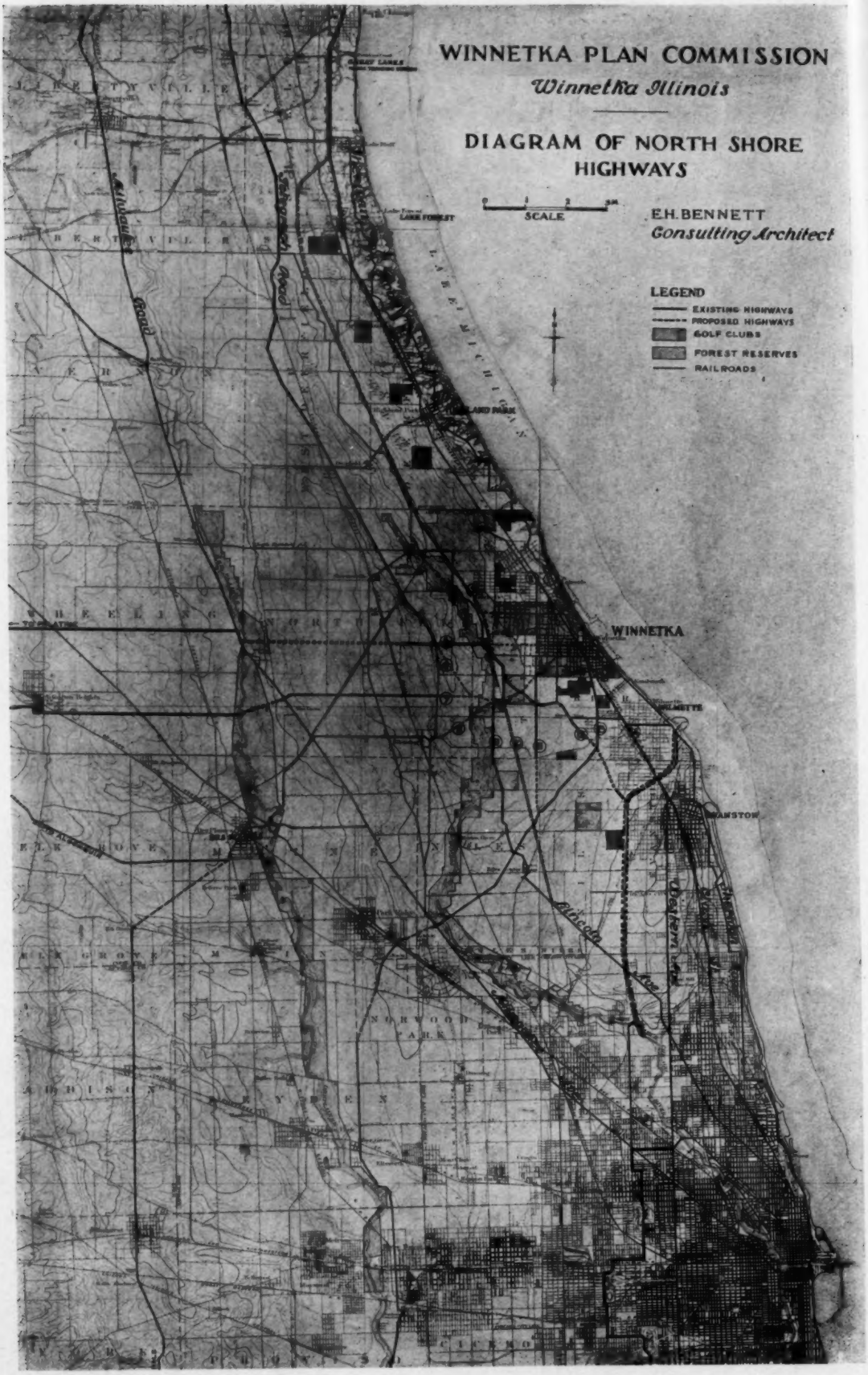
The foundations for these improvements are well under way. In 1912 the Glencoe Park District was organized, with five elected commissioners. Immediately after organization, the district began to acquire property either by purchase or donation. This was not always the procedure. The property on which the community center is to be located was acquired by the co-operation of the Chicago Title and Trust Company, by which it provided the cash for purchase. It took title in trust for the benefit of the Glencoe Library, the Park District and the village, and by the ingenious application of the statute the Glencoe Library was enabled to levy a five mill tax over a period of years for library purposes. Out of this the entire property will be paid for within a short period of time. One hundred and sixty-six public-spirited citizens signed a guarantee to the Trust Company to hold it harmless from loss by reason of the purchase of this property for the benefit of the people of Glencoe.

Property on both sides of the railroad throughout the limits of the village will be secured, a large portion of it is now in the ownership of the district. The district can then control the improvement of the property and prevent the incursion of business along the railroad, with its usual unsightly appendages.

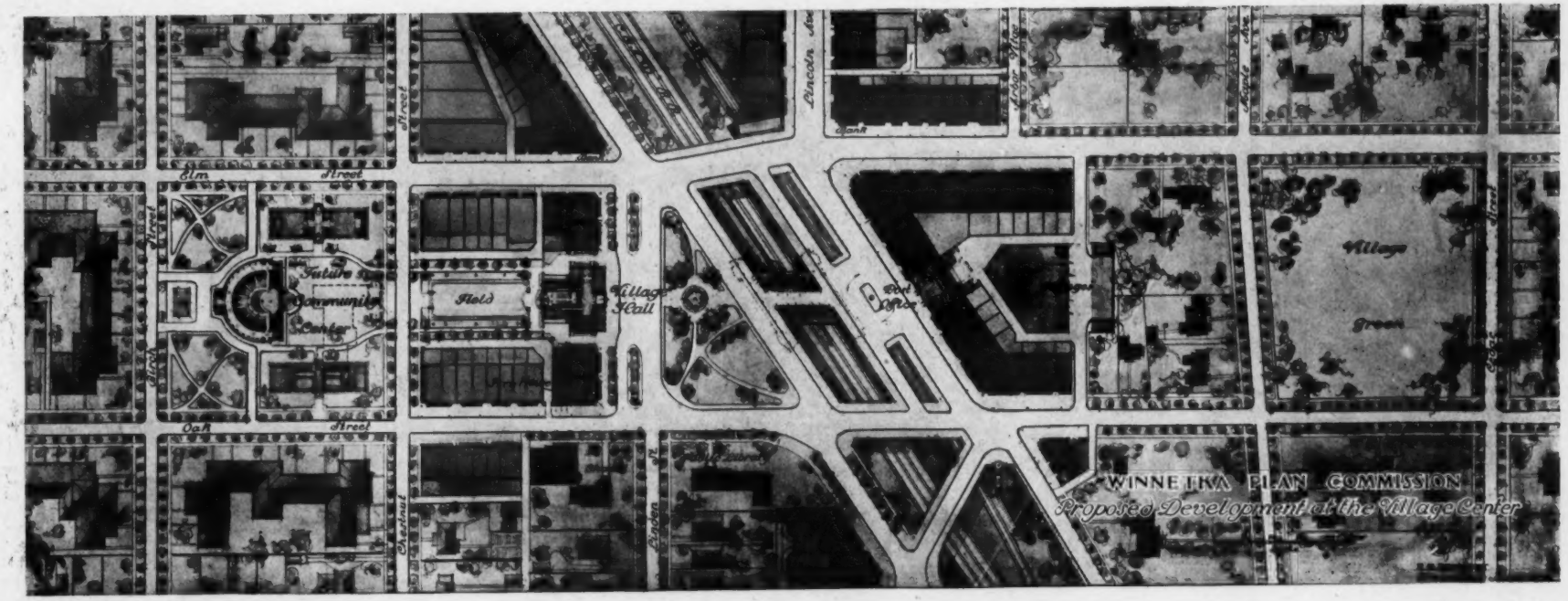
It might be of interest to know that all of the Community Center property and a large proportion of the Park property in the village of Glencoe was bought originally without any money. When they needed a piece of property for public purposes, the fact that they had neither money nor bonding capacity did not deter them, but they would induce the owner to make a low price on the property and then get him to put a mortgage on it for the full purchase price and give a warranty deed of the equity to the Park District or Community Center, subject to the mortgage. Then, at their leisure, and when they were financially able, the public au-



GENERAL PLAN OF DEVELOPMENT, WINNETKA, ILLINOIS.
EDWARD H. BENNETT AND WILLIAM E. PARSONS, *CONSULTING ARCHITECTS*

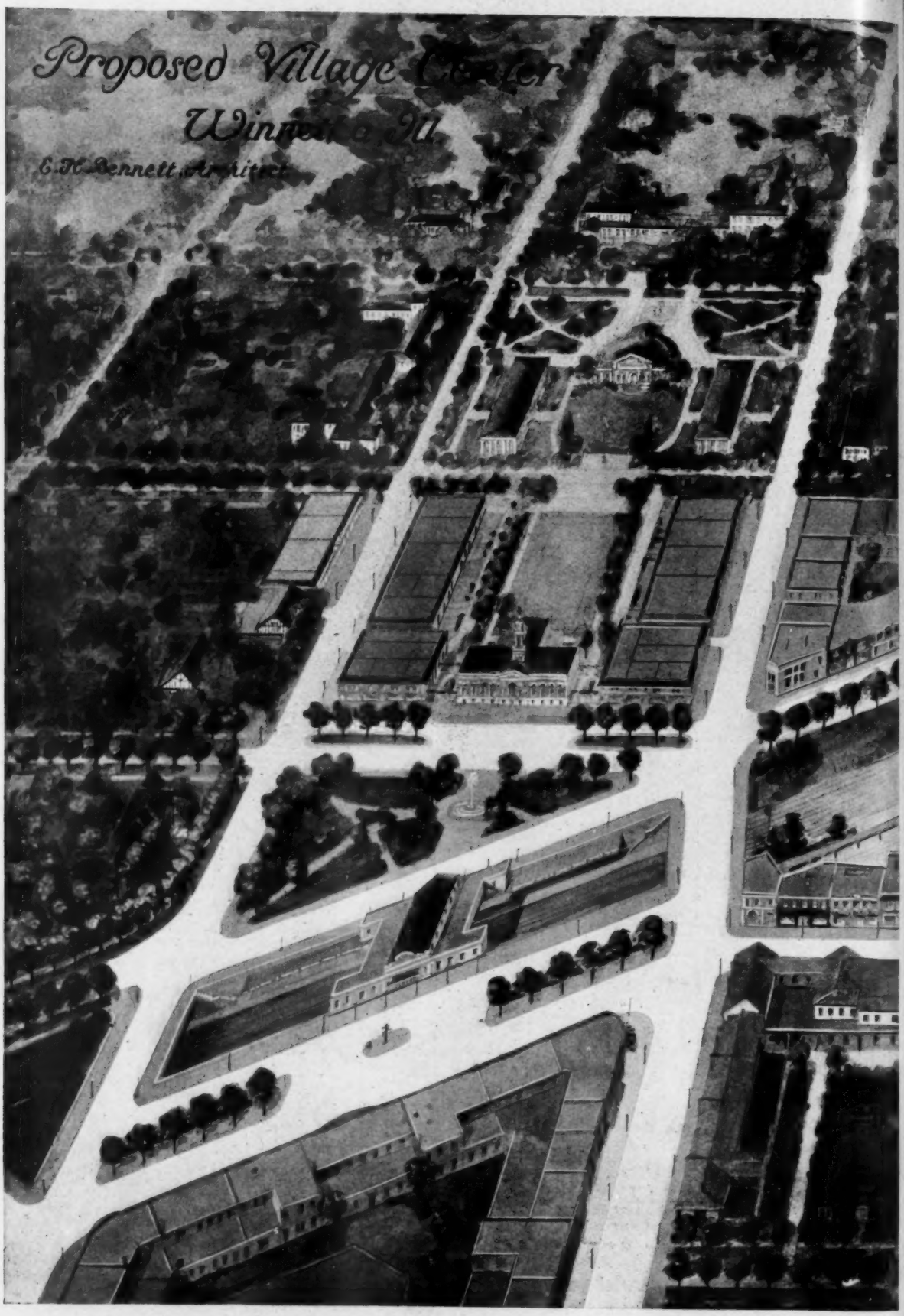


THE "NORTH SHORE" SUBURBS OF CHICAGO



PROPOSED COMMUNITY CENTER, WINNETKA, ILLINOIS

EDWARD H. BENNETT AND WILLIAM E. PARSONS, *CONSULTING ARCHITECTS*



COMMUNITY CENTER, LOOKING WEST, WINNETKA, ILLINOIS
EDWARD H. BENNETT AND WILLIAM E. PARSONS, *CONSULTING ARCHITECTS*

thorities would pay off the mortgage, but in the meantime they had saved the property to the village and had procured the title before it was too late, and at a time when it could be obtained at ridiculously low figures. This has been the history of practically all property purchased for public purposes in Glencoe in the last eight years.

"It is a fallacy, indeed," states Mr. Maher, "to assume that man cannot create an attractive environment. The reason why our cities and towns have not generally been made more beautiful is because adequate thought has not been given to this important problem of orderly development, combining successfully nature, building, art and architecture." This is very true, but in the first instance the desire for the improvement must be engendered. This can be aided by demonstrating the ultimate probability by such legal procedure as in the case of the village of Glencoe. These things which are in the process of development along the North Shore are possible in almost any community. It is to be hoped that the interesting example of Winnetka and Glencoe will serve to stimulate such undertakings throughout the country.

Specification Clauses

By Francis W. Grant

DRAWINGS.

The extent and general scope of the work is shown on the contract drawings consisting of seventeen sheets numbered from 1 to 16 both inclusive. Larger scale drawings and full size details will be furnished from time to time as the nature of the work demands showing with greater exactness what is contemplated by the contract drawings.

All work must be executed in exact compliance with the contract drawings and with all drawings subsequently furnished in so far as these are consistent with the said contract drawings.

Figured dimensions shall be given preference to scaled dimensions and must be verified by the contractor who will be held responsible for error resulting from failure to so verify, provided, however, that no responsibility shall attach to the contractor for erroneous dimensions when these are such through error of judgment on the part of the architects.

Apparent error or discrepancy in any drawing must be promptly referred to the architects for correction and their decision obtained before the work affected is proceeded with.

WHAT shall constitute the "contract" drawings should always be plainly stated and the distinction between these and all other drawings thereafter faithfully observed. This is essential not only to ensure exact justice to the contractor but to protect the owner as well, for if there be ambiguity on this point the integrity of the whole contract is endangered.

The following quoted from specifications prepared by a well known firm of architects is an apt illustration of leaving the door wide open for trouble.

The drawings consist of a series of general drawings made at a scale of four feet to one inch, and the necessary detail drawings at a larger scale, or full size, these scales being plainly marked on each sheet.

Under such a clause bidders are asked to gamble on the unknown and will do so only when satisfied that the odds are in their favor with a considerable margin of safety.

The "contract drawings" are those only upon which the contract is tounded and obviously to be such they must have been submitted to the contractor before he entered into the contract. A contract to build according to *certain* drawings would, in the absence of any evidence of the *certainty* be difficult if not impossible to enforce.

To prevent any doubt as to the exact identity of the contract drawings all references to them in invitation to bidders, bid blanks and correspondence should be in identical language and their permanent identification should be secured by the signatures of both parties to the contract affixed at the time the contract is negotaited.

Although a self-evident fact, the complaints of builders seem to justify the statement that an architect has no more right in law or equity to make detail drawings which impose obligations on the contractor exceeding, in the slightest degree, those agreed to and shown on the contract drawings than he has to pursue an opposite course at the expense of his client.

Mere carelessness on the part of draughtsmen accounts for some unlawful liberties taken in the preparation of detail drawings while in other instances these are only the cover for error in the contract drawings which the architect lacks courage to acknowledge by asking for a proposal from the contractor to cover the expense involved in rectifying.

Many times the explanation for the issuance of details not conforming with the contract drawings

lies in the honest but erroneous opinion of the architect that he should give the owner the benefit of such betterments in construction and design as the progressive workings of his mind may develop as the work proceeds. One architect of considerable note who evidently holds such views incorporates in his specifications this clause "details will be subject to minor modifications in the full size drawings." This architect apparently fails to appreciate that such "minor modifications" partake of the nature of contributions by one to the other of the contracting parties.

The practice of introducing betterments at the time details are being prepared with the expectation that the contractor will be a good fellow and make no extra charge therefore, has proved pernicious in that it encourages trading so as to secure a balance between the parties. A balance so secured will seldom stand a critical analysis for in the case of trading of this quiet nature, it may be taken as a moral certainly that the contractor will always secure advantage, for he is the only party with absolute information as to true money values, the contrary opinion of many architects notwithstanding.

All contractors do not possess a degree of familiarity with drawings and the conventions incident to architectural practice sufficient to render them competent to say what detail drawings are consistent with the true intent of the contract drawings. One of such the low bidder is pretty apt to be and the resulting controversy over alleged discrepancies in the drawings is only another item of the ills due to letting to the lowest bidders of all comers.

If, in the preparation of details, it be deemed desirable to depart from the contract drawings, even though such departure seems to involve no additional expense, it is recommended that the architect subject himself literally to the method provided in the specifications for effecting changes. A written proposal to make certain changes without cost to the owner followed by a written acceptance bars subsequent controversy and will prove very valuable at the time of final settlement.

Specifications very frequently overstep all reasonable bounds in fixing the degree of responsibility that the contractor shall assume for errors in the drawings. The clause here suggested is intended to attach responsibility to the contractor for error in dimensions of such character only as affect the general laying out of the work. Responsibility for the accuracy of dimensions involving the strength, utility or appearance of the structure should remain absolutely with the architect who alone is reimbursed for bearing it. To show in detail the dimensions of all parts of a steel framing system and then require that the drawings shall be checked and if necessary redrawn on the basis of certain described stresses and clearances is not an uncommon practice of the profession. The architects employed by some departments of the Government shift their responsibility in this manner in all their structural drawings.

The drawings should be prepared with constant observance of what their true function is and if so prepared they will not be burdened with a profusion of notes, comments and descriptions, properly belonging in the specifications. A requirement that cannot be expressed graphically can generally be expressed with greater legal force and more appropriately in the specifications, and drawings free from such misplaced written matter will always be the better for it. On the other hand it should never be necessary to burden the specifications with bills of quantities or schedules of any kind. The dimensions of framing lumber, kinds of wood in the several rooms, quantity of radiation, capacity of light outlets, and all similar data should be obtainable from the drawings. To repeat information already given on the drawings by inclusion in the specifications is liable to result in contradiction and should never be attempted. In the case of drawings and specifications prepared by different persons omissions of serious consequence are liable to occur unless both are prepared with the understanding that neither shall attempt to repeat what the other undertakes to cover.

Ordinary justice to the client demands that the architect shall render drawings as complete as possible, reducing the necessity for shop drawings to the minimum. To this end he should endeavor to familiarize himself with modern practice and conventions of the builders of his locality or the metropolis influencing that locality and be governed by this in his work.

It is impracticable to pass a full size detail sheet along from one shop to another in the order that each completes the part of work in its line shown on the sheet and it is not good practice for the general contractor to cut up the details for distribution to the various crafts. The contractor must, however, adopt one of these methods or the more expensive one of making copies unless the architect shows regard for craft divisions and sequence of operations in the preparation of details.

XUM

Beaux-Arts Institute of Design

DIRECTOR OF THE INSTITUTE, LLOYD WARREN
ARCHITECTURE, WILLIAM F. LAMB — SCULPTURE, JOHN GREGORY
MURAL PAINTING, ERNEST C. PEIXOTTO — INTERIOR DECORATION, ERNEST F. TYLER

Official Notification af Awards—Judgment of March 16, 1920

PROGRAM.

CLASS "B"—III ANALYTIQUE.

The Committee on Architecture proposes as subject of this Competition:

"A MEMORIAL GATEWAY."

It is proposed to erect at one of the entrances to the grounds of a university, a gateway as a memorial to students who left their studies to take part in the war.

This gateway shall have piers at either side of the roadway, surmounted if desired by decorative forms. Adjoining these piers are flanking walls, pierced with openings for the footpaths bordering each side of the roadway. The space between the main piers and the openings to the footpaths may be closed with gates, if desired. One of the orders shall be used in the composition.

The width of the roadway including the footpaths shall not exceed 40 feet.

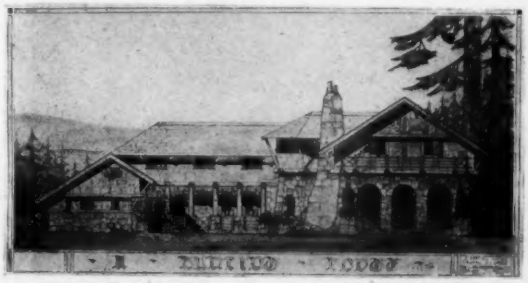
JURY OF AWARD:

W. F. Lamb, F. A. Godley, P. A. Cusachs, H. R. Sedgwick, L. Warren, A. E. Flanagan, W. Van Alen, A. L. Noel, E. V. Meeks, M. J. Schiavoni, J. O. Post, and E. Gugler.

NUMBER OF DRAWINGS SUBMITTED: Eighty-six.

AWARDS:

First Mention Placed: G. S. Beach, Atelier Parsons, Chicago Architectural Club, Chicago; A. L. Muller, 263 East 19th street, Brooklyn, N. Y.



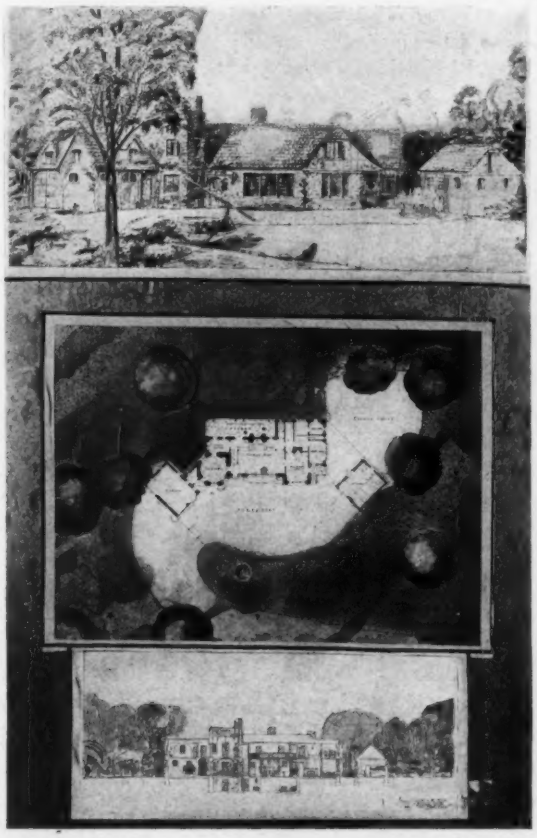
F. J. LOGAN — PORTLAND ARCHTL. CLUB

FIRST MENTION PLACED

First Mention: G. B. Bengtson, Boston Archtl. Club, Boston; J. Truden, E. R. Coburn and J. P. Bennett, Atelier Corbett-Gugler, N. Y. C.; K. Sasagawa, Atelier Hirons, N. Y. C.; L. A. Palicki, John Huntington Poly. Institute, Cleveland; G. H. Brockow, Los Angeles Archtl. Club, Los Angeles; J. Schierhorn, Atelier Parsons-Chicago Archtl. Club, Chicago; R. R. Hibbs, University of Kansas, Lawrence; Doris Seibert and Rosalie Haas, University of Washington, Seattle.

MENTION:

H. R. Hall and W. C. McDermott, Boston Architectural Club, Boston; L. Mazurowski and C. H. Arras, Atelier Bradney, Buffalo; A. J. Bagley, P. Singer, A. R. Mohr and G. J. Hanniken, Atelier Corbett-Gugler, N. Y. C.; H. E. Rudy, C. J. Pellegrini, G. E. Tucker, F. H. Floyd, T. C. Tiffany, A. W. Chesterman and H. W. Anderson, Carnegie Institute of Technology, Pittsburgh; A. M. Taylor and H. W. Gill, Columbia University, N. Y. C.; A. Wuchterl and S. A. Snyder, Atelier DeGelleke, Milwaukee; H. F. Hays, W. S. Robson and F. J. Brince, Atelier Hirons, N. Y. C.; J. E. Miller and E. C. Rising, John Huntington Poly, Institute, Cleveland; M. Sabransky and E. Brockow, Los Angeles Architectural Club, Los Angeles; C. E. Savage and L. E. McConville, Atelier Parsons-Chicago Architectural Club, Chicago; J. N. Maddocks and W. G. Hintz, Jr., Pennsylvania State College, State College; J. J. Welsh Swain Free School of Design, New Bedford; K. C. Albright, J. H. Geissel, W. C. Chance, J. A. Flether, H. T. Plumer, E. S. Young and E. A. Beihl, "T" Square Club, Philadelphia; W. B. Bridges and A. H. Miller, Thumb Taek Club, Detroit; Verner Carlson, W. F. Yungbauer and C. H. Hinman, University of Minnesota, Minneapolis; H. W. Watson and A. E. Evans, University of Kansas, Lawrence; G. M. Trout and K. B. Niven, University of Texas, Austin; E. G. Wendland, D. P. Thomas, A. A. Shay and M. W. Gill, University of Washington, Seattle; E. Penfield, Atelier Wynkoop, N. Y. C.

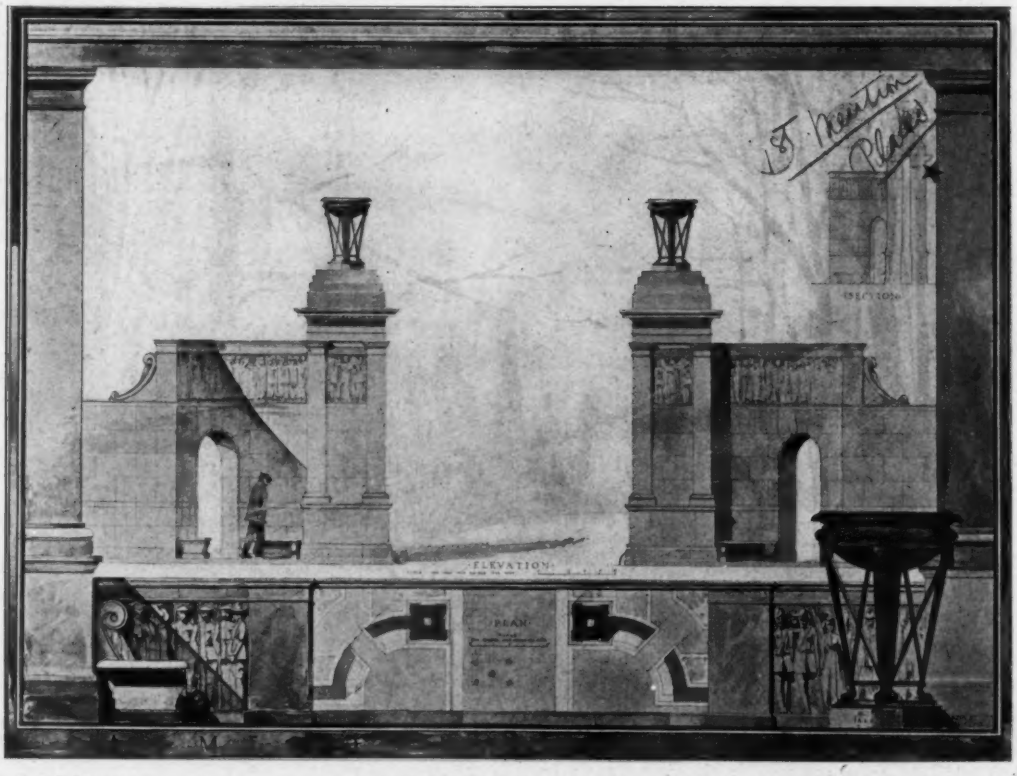


M. JAEGER, JR. — ATELIER HIRONS

FIRST MENTION PLACED

CLASS "B"—III PROJET—A HUNTING LODGE

G. S. BEACH — FIRST MENTION PLACED — ATELIER PARSONS, CHICAGO ARCHTL. CLUB



A. L. MULLER — FIRST MENTION PLACED — BROOKLYN, N. Y.

CLASS "B"—III ANALYTIQUE—A MEMORIAL GATEWAY

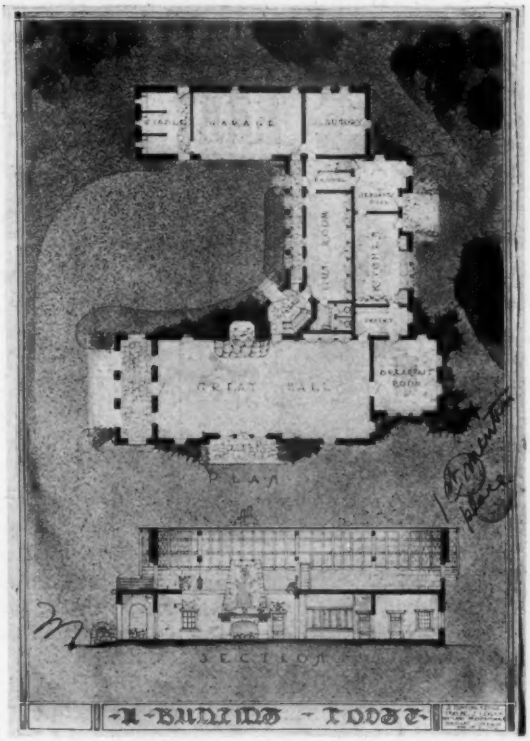
PROGRAM.

CLASS "B"—III PROJECT.

The Committee on Architecture proposes as subject of this Competition.

"A HUNTING LODGE."

A wealthy man desires to build a lodge on his private hunting preserve in the heart of the woods. He entertains a great deal and his guests, free from the conventions of



T. J. LOGAN PORTLAND ARCHTL. CLUB

FIRST MENTION PLACED

the city and without any formality of dress, tramp the woods and ride through the country, coming and going at all hours as they please. Only at dinner, or about a great log fire in the evening, do they all gather together to entertain one another and to relax after the fatigue of a long day in the open air.

So, though the lodge need not be luxurious, it should be commodious in its arrangements and suitable, in character for the simple and unaffected life of the woods. The following requirements are to be grouped into two or three detached units or in a single building, arranged about a closed or open court or courts.

A great hall, a gun room, a small breakfast room, a kitchen, pantry, laundry and servants' hall, and a garage and stable for three or four cars or trucks and five or six horses. Six bed rooms with baths, a dormitory room for men guests, and six servants' bed rooms shall be provided on upper levels.

The entire plot occupied by the building or buildings shall not exceed 100 feet in any direction, and shall be considered as approximately level.

JURY OF AWARD:

R. M. Hood, B. W. Morris, F. C. Hirons, F. Hitchens, M. B. Stout, H. Davenport, O. C. Hering, C. Mackenzie, E. J. Kahn, J. Wynkoop, J. F. Harbeson and C. I. Berg.

NUMBER OF DRAWINGS SUBMITTED: One hundred and nine.

AWARDS:

First Mention Placed: L. E. Considine and F. O. Rennison, Carnegie Institute of Technology, Pittsburgh; M. Jaeger, Jr., and N. P. Bevin, Atelier Hirons, N. Y. C.; O. L. Gowman, 611 West 156th Street, N. Y. C.; T. J. Logan, Portland Architectural Club, Portland, Ore.; H. R. Leicht, "T" Square Club, Philadelphia.

First Mention: R. W. Schmertz, R. M. Crosby, P. F. Simpson and R. A. Fisher, Carnegie Institute of Technology, Pittsburgh; E. Olsen, R. DeGhetto and W. F. Boice, Atelier Hirons, N. Y. C.; A. Gambell, Portland Architectural Club, Portland, Ore.; A. H. Goddard, Atelier Wynkoop, N. Y. C.; A. C. Smith and L. Hamilton, Yale University School of Fine Arts, New Haven; L. F. Fuller, Los Angeles Architectural Club, Los Angeles.

Mention: R. C. Hollister, Boston Architectural Club, Boston; L. H. Rank, S. H. Jamison, E. A. Early, R. V. Murison, M. W. Pohlmeyer, R. E. Dake, H. C. Brockmann, C. W. Hunt, C. L. DePrefontaine, K. A. Snow and E. A. Lench, Carnegie Institute of Technology, Pittsburgh, A. K. E. Volmer, G. A. Hacker, R. H. Bickel, O. Betts, F. L. Hutchins, F. M. Libby, N. Thorsen, W. C. Yanike, H. J. R. Barrett, H. R. Kaplan and P. Simonsen, Columbia University, N. Y. C.; W. M. Dowling, Atelier Corbett-Gugler, N. Y. C.; W. A. Robinson, C. G. DeNeergaard, G. H. Gibson, W. H. Merrison and H. E. Maddox, Georgia School of Technology, Atlanta; J Lucchesi and A. Liptak, Atelier Hirons, N. Y. C.; E. L. Babitsky, John Huntington Poly Institute, Cleveland; J. Hill, 76 Manhattan Avenue, N. Y C.; A. G. Stanton, Portland Architectural Club, Portland, Ore.; J. W. Minick and F. S. Hobbes, Pennsylvania State College, State College; H. W. Anderson and J. B. Lindquist, Atelier Parsons-Chicago Architectural Club, Chicago; E. N. Damon, Atelier Schadler, Reno; T. R. Fahey and W. J. Rankin, "T" Square Club, Philadelphia; G. L. Dahl, Shu-Ming Lin and E. M. Loye, University of Minnesota, Minneapolis; Julia Carman, E. F. Bircsak, S. W. Bihr, Jr., H. E. Machamer, G. L. Chandler and L. F. Soxman, University of Kansas, Lawrence; L. B. Wamnes, Atelier Wynkoop, N. Y. C.; D. W. Murphy and R. B. Thomas, Yale University School of Fine Arts, New Haven; L. Rombotis, Los Angeles Architectural Club, Los Angeles.

H. C.: C. A. Lake, T. G. Todd and A. A. Lewis, Carnegie Institute of Technology, Pittsburgh; G. W. Green, Atelier Corbett-Gugler, N. Y. C.; J. Y. Arnold, Georgia School of Technology, Atlanta; P. Goodman, Atelier Licht, N. Y. C.; D. K. Frohwerk and J. L. Fleming, University of Kansas, Lawrence.

Early Home of Colonel Van Vredenburgh No. 7 State Street, New York

(See reproduction of the original drawing by O. R. Eggers in this issue)

THIS fine example of architecture in New York was erected about the year 1800. It was then considered one of the best mansions of that locality, fronting on Bowling Green. It stands today as it did then, an example of the quiet dignity of well considered design. And, while the rapid march of time has served entirely to change the character of the buildings which surround it, there are yet unspoiled those elements of architectural excellence that are so well accented by Mr. Eggers' pencil.

Today the house stands well back from the Battery wall, as between it and the bay lies the broad expanse of Battery Park, and to the westward, the Bowling Green. At the time of its erection, this house stood almost at the water's edge. Shackleton, in the "Book of New York," relates: "When Colonel VanVredenburgh, who had served in the Revolution, moved away in 1804, he loaded his furniture into a boat at his front door, and then he and his family started on their journey up the Hudson to a new home in the Mohawk Valley." This is interesting as showing the very radical changes of a century in the topography of lower Manhattan Island.

No record has been discovered as to the name of the architect.

At present the building is occupied by the Mission of Our Lady of the Rosary. This occupancy is perhaps the reason that has saved this building until today from a fate similar to other fine structures that at one time graced the neighborhood.

Issues Regulations for Theatre Buildings in Pennsylvania

SPECIFICATIONS to architects and builders regarding the construction, alteration or repairing of buildings in which public entertainments are given have been issued by the Commissioner of Labor and Industry, says the Philadelphia *Public Ledger*. It is provided that the location must be suitable and that no steps will be allowed at the entrance or exits other than one of eight inches rise. All other differences in levels must be overcome by means of inclines which cannot exceed one foot rise in ten feet. If side and rear courts are necessary, they must be not less than five feet wide in the clear and they must lead to a street or alley. All doors opening into the courts must be made to swing flush within the wall.

Exits cannot be less than five feet in width or more than six feet wide in the clear. They must have outswinging, double doors, equipped with approved panic locks. The colored illuminated "exit" sign must be placed at each door. All aisles having seats on both sides must be not less than four feet wide in the clear and wall aisles must be at least three feet, six inches wide. Cross aisles must be five feet wide. It is provided that there shall not be more than six seats between any one seat and an aisle and not more than fourteen seats between any two aisles. Seats must be eighteen inches between the arms and thirty inches from back to back of rows. They must be fastened securely to the floor and the front rows cannot be closer than twelve feet to the screen, and the rear seats five feet from the foyer wall.

The specifications provide that picture booths be constructed to conform with the motion-picture act of 1919, and that wiring must be done in accordance with the electrical code and rules of the Underwriters' Association, while the stage must conform with the fire and panic act of 1909. Galleries must be constructed according to general requirements, and in buildings hereafter erected means of egress must be within the walls of the building. Plans for these buildings must be submitted in duplicate to the Department of Labor and Industry for approval.

Theatres seating fewer than 251 persons shall, in addition to these requirements, have two five-foot exits in front and two of the same size in the rear. Houses seating fewer than 501 and more than 250 shall have three five-foot exits in front and two six-foot exits in the rear. Theatres seating fewer than 1,001 and more than 500 shall have three five-foot exits in front and twenty inches additional for each 100 or fraction of 100 persons over 500, two six-foot exits in the rear and two five-foot exits, placed one on each side of the theatre.

HOUSE No. 7 STATE STREET, NEW YORK
THE AMERICAN ARCHITECT Series of Early American Architecture

XUM

Education in the Fine Arts

PERHAPS the chief cause for our failure in this country more rapidly to approach a better appreciation of the fine arts is due to the tendency on the part of our colleges to instruct more largely in the liberal arts. A most excellent authority is George C. Nimmons, of Chicago. Speaking before the recent convention of the Institute, and with special reference to the report of the Institute Committee on Public Appreciation of the Fine Arts, Mr. Nimmons stated:

"Our college students" (meaning all colleges and not specifically colleges of architecture), "outside of a few of the leading large colleges, are turned out every year without one word of instruction or information on this great subject of the Fine Arts. The educated American is deficient in that great subject which European scholars give proper importance to and which we to our discredit have so much neglected."

The great trouble with our educational methods is that curricula are largely controlled by an impractical element which from year to year continues in a rut of repetition and does not or will not realize the necessity for meeting new and much changed conditions.

This journal has in and out of season urged that it was the duty of the men in practice to concern themselves more seriously with matters of educational methods. No one can better judge of the shortcomings of present methods than men in practice. To them, fresh from our architectural colleges go the students, with all the ideals and points of view their school training has given them. No better opportunity could be afforded to study just how well these students are equipped to start correctly and successfully continue their chosen profession.

This matter of education, whether in the fine arts or specifically as confined to architecture, is one that needs much revision. So much was practically conceded by every man who spoke on this topic when the report of the Committee on Education was at some length debated at Washington during the last Institute Convention. The report was a splendid one. In fact it was along the lines of similar reports during past years that have been presented by the Committees on Education. But what of it? What do all the patient research, the careful study and the wise recommendations amount to without the machinery of the Institute behind them to give an impetus and practically to put in force the things that are so wisely set forth.

Nine-tenths of the troubles which the profession of architecture has experienced during recent years can be directly traced to faulty educational methods. As this appears to be generally conceded, as the attitude of the Institute is thoroughly in accord with the wise recommendations of their Committee on Education, why not take action and get something done.

No organizations of technically trained men have ever produced more valuable reports than those annually presented at conventions of the Institute. And of these, none are of greater merit than the reports of the various Committees on Education. Aside from the very practical value of the work done and the method endorsed, these reports have a literary value that makes them desirable to read as models of good style.

The Institute's attitude toward its reports and its failure to carry forward even a small proportion of their recommendations reminds one of the busy housewife who declared she had so much to do that she believed she would take a nap. More and more do these conditions indicate the necessity for the extension of the duties and the authority of the Executive Secretary. Under such a well conducted office as would naturally become evolved, the Institute could carry forward at least a part of the important tasks it sets itself when it adopts at its conventions these splendidly prepared reports.

The Housing Question

THE theorist is, as usual abroad in the land. In the quiet seclusion of many a "study" from which in the past so many unfulfilled prophecies have emanated, we are seriously told just how the shortage of houses may be remedied. A little matter of

conflict with the constitution does not deter these sapient ones from insisting on the wonderful cure-all features of their schemes.

Meanwhile practical men are disheartened and wonder what the cold days of this autumn will bring forth when a frenzied lot of people without house or home clamor for relief. The real trouble with the housing situation is practically created by the large amount of non-essential building now going forward. Every city in this country is contributing in that way to the present complication. Meanwhile the rent profiteer goes on his way, creating despair in the heart of the homeseeker.

Governor Lowden of Illinois sounded a timely word of warning when he recently told a committee of Chicago real estate men that if they did not take steps to relieve the present situation to stop the excessive advance in rents, real property might be impressed in Chicago as a public utility. Under our present constitution profiteering in rents cannot be legally curbed.

The landlords point to the published percentage of advance in all the various departments of merchandising and accent the fact that the average rate of advance is lower than on anything else. Percentages up to more than 200 are cited, and the fact that the percentage of rent advance is but about 65 per cent. is the basis of the arguments advanced by landlords that they should not be classed with profiteers.

Building interests since the very outset of the war have suffered more than perhaps any other. With an almost entire cessation during a period of two years, it was confidently hoped that with the signing of the armistice, an industry that is in this country second in volume only to agriculture might resume its former activities. Complications as to financing loans, labor strikes and now the very serious problems of transportation all combine to hamper the resumption of building except in certain directions. And, unfortunately, these directions are not toward the greatest good for the greatest number. Housing, the vital part of building today, languishes, and it would seem that it will only be through some such action as Governor Lowden has suggested can we hope to find relief.

Where Does the Architect Function in this Case

WHO shall decide when trade unions disagree? Evidently not the masterbuilder, or the architect, as he is now called. If ever there was a case where the tail wagged the dog, it is to be found in a recent jurisdictional dispute carried on in Chicago between the plumbers and the bricklayers.

The plumbers arbitrarily announce that no member of their union will be permitted to work on any building where the entire drainage system from the building line is not laid with iron pipe.

The bricklayers virtuously declare that this action is but another of the schemes to increase the cost of building. They further state that from both a sanitary and economic standpoint tile pipe drains should be installed wherever the grade will permit.

So then, if neither union recedes from its present position, construction may very likely stop as one will not work if the other does. Meanwhile the architect will remain a very much interested but a quite unimportant onlooker.

Reminds one of the oft told story of "Father" Taylor, a well known pastor of Boston's celebrated Bethel Church. Accosting a sailor one Sunday morning, he urged him to come along with him to church. The sailor answered, "I'm damned if I will," to which Father Taylor replied, "You'll be damned if you don't."

SOUTH FRONT, HALFIELD HOUSE, HERTS, ENGLAND

KIMBALL HALL BUILDING, CHICAGO, ILL.
GRAHAM, ANDERSON, PROBST & WHITE, *ARCHITECTS*

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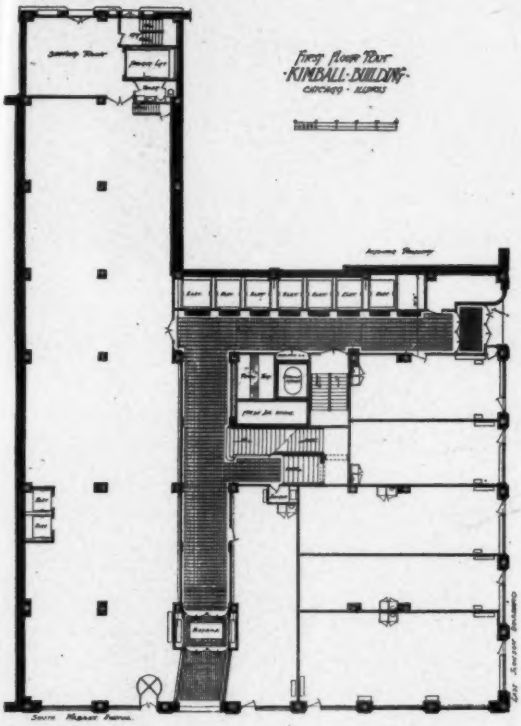
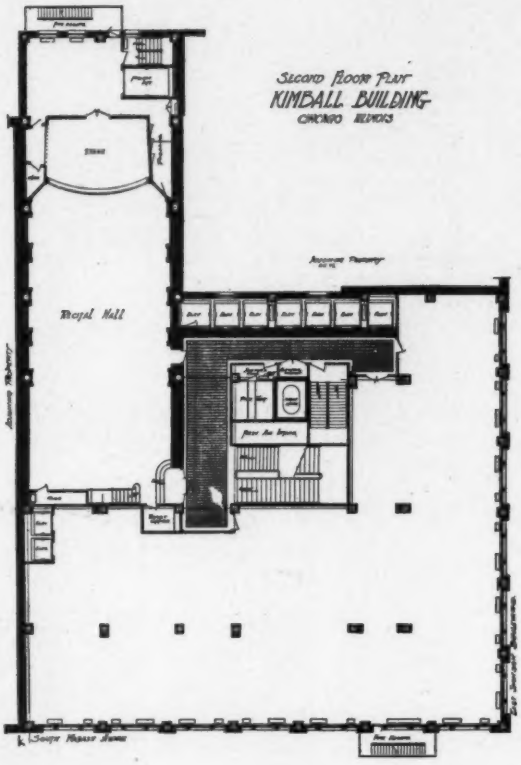
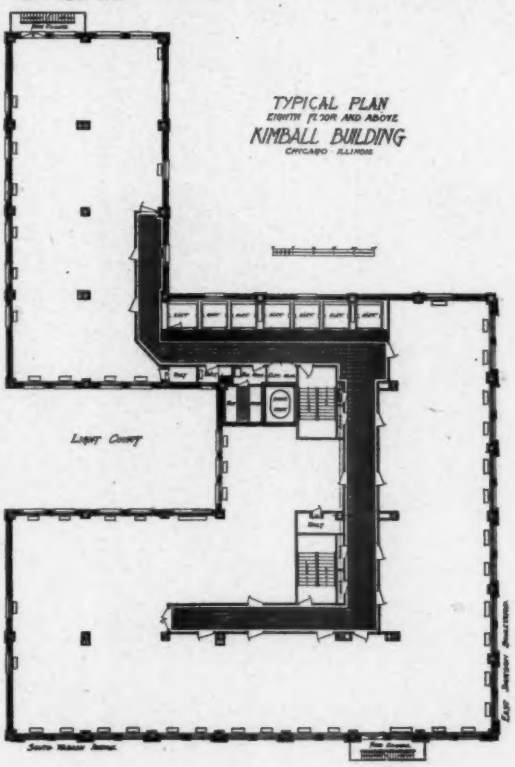






KIMBALL HALL BUILDING,
CHICAGO, ILL.

GRAHAM, ANDERSON, PROBST & WHITE, *ARCHITECTS*

DETAIL OF LOWER STORES
KIMBALL HALL BUILDING, CHICAGO, ILL.
GRAHAM, ANDERSON, PROBST & WHITE, *ARCHITECTS*

DETAIL IN LOBBY

MAIN STAIRWAYS

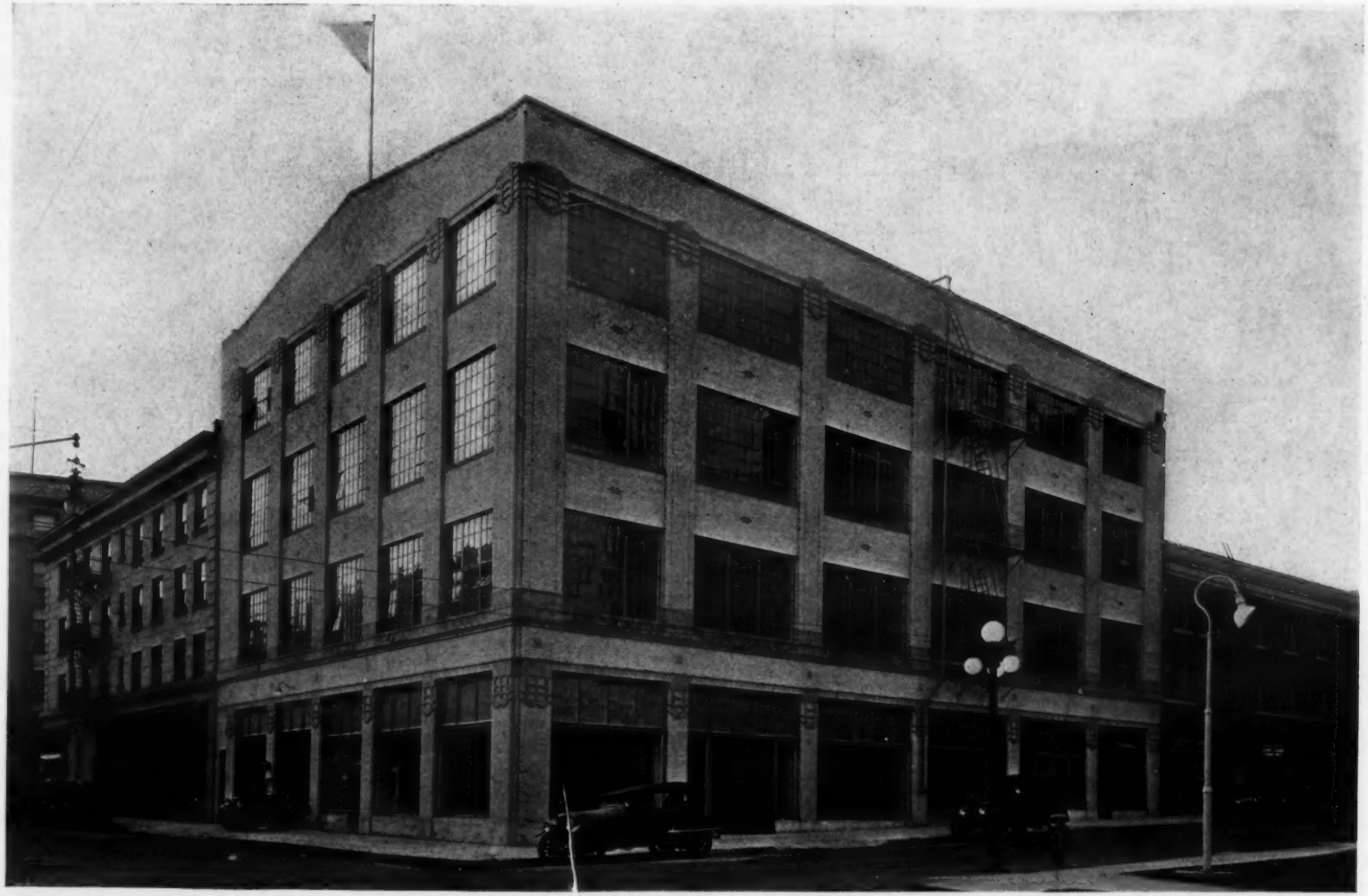
KIMBALL HALL BUILDING, CHICAGO, ILL.

GRAHAM, ANDERSON, PROBST & WHITE, *ARCHITECTS*

THE RECITAL HALL
KIMBALL HALL BUILDING, CHICAGO, ILL.
GRAHAM, ANDERSON, PROBST & WHITE, *ARCHITECTS*

GARAGE BUILDING, PORTLAND, OREGON
SUTTON & WHITNEY, *ARCHITECTS*

This building is of heavy mill construction, 100 by 100 feet, and cost about $50,000. The columns were cast in two operations, the structural column first and the outside fluted shell being cast afterward.



GARAGE BUILDING, PORTLAND, OREGON
SUTTON & WHITNEY, *ARCHITECTS*

The building is 75 by 112 feet, and is of heavy mill construction with a floor finish of concrete.

State Departments of Architecture

A Solution for a More Professional Type of Architectural Training

By E. T. Huddleston

MUCH has been said and written about the shortcomings of the past and present day methods of architectural education, but as yet there seems to have been no decided action taken by any particular body of architects or group of educators in changing those methods as set forth in the existing curricula of the architectural schools. True, a few courses of study have been dropped or substitutions made that may have strengthened the course but as yet no concrete plan, to the writer's knowledge, has been accepted as meeting the criticism directed against the architectural schools.

Granted, that the present methods of education for young men who intend entering the profession as architects is wrong or deficient in principle or subject matter taught, whatever the real reason may be for the acknowledged failure to produce men qualified to carry on the work of the architect. Can there not be found among the whole profession one man or a group of men who can crystalize this elusive element and inject it by reason of his or their standing and with the backing of such a body as the A. I. A. into the consciousness of those who have the direction of architectural curricula in the schools of the country and bring order and assurance out of the uncertainty that now exists?

The writer offers a few suggestions he trusts will lead to a more thorough discussion of this subject by those individuals who are in time to lead us out of the wilderness, and after all is said and done, I believe we will find that a large part of our present uncertainty and difficulty with this problem has been due to a difference in point of view of the whole matter. Are we not visualizing the path of the aspiring student of architecture from the "finish" instead of traveling that path with him from the very start? And, after the student has finished the prescribed course and offered himself to the profession, is he not judged wholly from the level of the successful architect and not from that of the beginner who is equipped to take on responsibility and, with proper direction, assume more and more the duties of the architect as he grows in experience?

Assuming the student has finished his course in one of our colleges of architecture and, without having had much experience in an architect's office, he offers himself to the profession. What service can he render and, in so doing, how is he fitting himself for independent practice if that is his ambition? Has that not been largely the state of affairs the architect has had to face in recruiting his office force and, in the failure of the novice to fit into any niche which the present-day office has open to him, is not that the reason for the cry of failure on the part of the educational institutions?

It may be the schools have fallen short in providing their students with the proper foundation on which to build a successful career. I feel that the greater mistake has been and is being made in the manner in which the students are received by the profession and their abilities put to use.

Let any successful architect think back to that point of time in his career comparable to that of the student leaving college and seeking his first job in an office and he will remember that the immediate future held for him a maze of diverging paths with very few sign boards to direct or assist him. Contrary to his expectations of an assured place in the profession as engendered by the spirit of his work and his associations in the school, he finds himself placed at the very bottom of the ladder and told in no uncertain terms that he is not a practical man and that he can be of no real value until he throws overboard all his theories and learns the duties of the office-boy and apprentice draftsman. In just about one week, such a beginner has had most of his ideals of a career destroyed and his outlook upon the profession is narrowed down to an eight-hour day of monotonous toil as a tracer alongside the apprentice draftsman with no college education who may be making full size details.

Your answer to this is right. The beginner should have worked in offices during summer vacations and been ready to assume greater and more responsible tasks when he had graduated from his college course. I believe here is where we shall find the right solution in giving our new men a better equipment to earn their places in the profession.

The schools are doing and will do their part to give all the academic work that the men need, but they cannot do it all. The architect must cooperate to the extent of recognizing the limitations of the schools and make places for the men in their offices during their preparatory years of study, treating them not as wage earners alone, but as students who are in time to carry on the work of the profession.

So I repeat, is it not a difference in point of view between the educators and the employers or archi-

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tects that is causing the difficulty and not in what the schools are teaching? Are not the schools attempting to produce architects and, contrary to popular belief, are not the architects confining their consideration of the students' qualifications too closely to the field of drafting? And if that is at all true, can any one expect the student to develop himself with his academic training as his stock in trade by the process of absorption and what contact with those in the offices can do to give him his insight into the larger field of effort that the architect is supposed to control?

This same question has been discussed and is no doubt still under consideration by the Post-War Committee on Education but, unless I am very much misled, they have made no definite program other than a recommendation to the architectural schools to change or enlarge their courses that certain subject matter may be introduced into the curriculum which, if done, will not meet the situation or alter the standing of the student when he has completed the course and applied for admission to the profession.

The school, as a school alone, cannot give the student the training he requires to fit into the organization of an architect's office and render a service other than that of what I might term as the office-boy-draftsman type. It cannot, with its present form of instruction, accomplish anywhere near the results accomplished by the "University of Beaume" of the A. E. F. which largely confined its curriculum to the study of executed work. There we have the two extremes in method of instruction and surely a happy medium, containing the good points of both methods, should produce results with less faults than are now obtained.

I hesitate in offering any direct solution. Others who have studied the problem have no doubt felt the same way about it. It is a question that cannot be settled in a moment or by the stroke of the pen, but there can be no doubt in our minds that some radical steps must be taken soon if we are to get out of the present ruts of precedence and tradition. I do not claim to have a solution to this problem but, by reason of having been such a student as above portrayed, a graduate from a college of architecture with no previous office experience, several years spent in different offices acquiring that experience we now acknowledge as represent the weak point in our school training, several years more as a teacher, developing a course in architectural construction in a State College, and now head of such a department in which the institutional buildings are designed and their construction supervised, I feel that what I do offer in the way of a suggestion for a course of training is not so visionary in character but what some point may be found worthy of consideration by others and lead to a better understanding of the problem that must be solved soon if we are to fill the ranks in the profession with men capable of becoming leaders.

In the January, 14, 1920, issue of THE AMERICAN ARCHITECT the New York State Department of Architecture was featured and "Architectural Education" was the main topic in the editorial section, and I assume that the subject matter contained in those articles is familiar to all who are keeping in touch with matters architectural.

A few of the larger states have established State Departments of Architecture for serving the architectural interests of the state efficiently and economically and it is only a question of a few years when all states will have done the same. These departments should by all means cooperate as suggested in the above mentioned article to produce that harmony and uniformity in institutional architecture that will lead to economy in not only the work in the department, but also in the construction under its supervision.

In order, however, to make such a department an economical investment for the state, sufficient work must be required of it that otherwise would go to outside agencies at a greater cost, or additional functions must be incorporated that are income bearing in order to reduce the maintenance costs.

State Colleges are recognized as paying investments, although they cost the state money to maintain. Every State College already has certain state departments doing work for the state and also serving as educational media in the college. Whether or not all state departments should be located at the state college as already advocated, is a question beyond the point at issue, but I do believe there can be found no better location for such departments whose functions are such as will readily coordinate with the educational departments of the college and thereby eliminate the wasted effort in maintenance and personnel of two separate departments and also deprive each other of the benefits of cooperative research, use of equipment, and the stimulus that would come from the greater demand for its product due to the larger interests it would serve.

Such a location is proper and practical for a state department of architecture and if so located, the advantages are very apparent as shown by the organization chart and explanation following.

Disregarding the make-up of the curriculum which is a matter now receiving very earnest study by those who are best fitted to solve its problem, we start our students in their course and hold them to their academic work for at least two years, possibly three, with such supplementary study during their

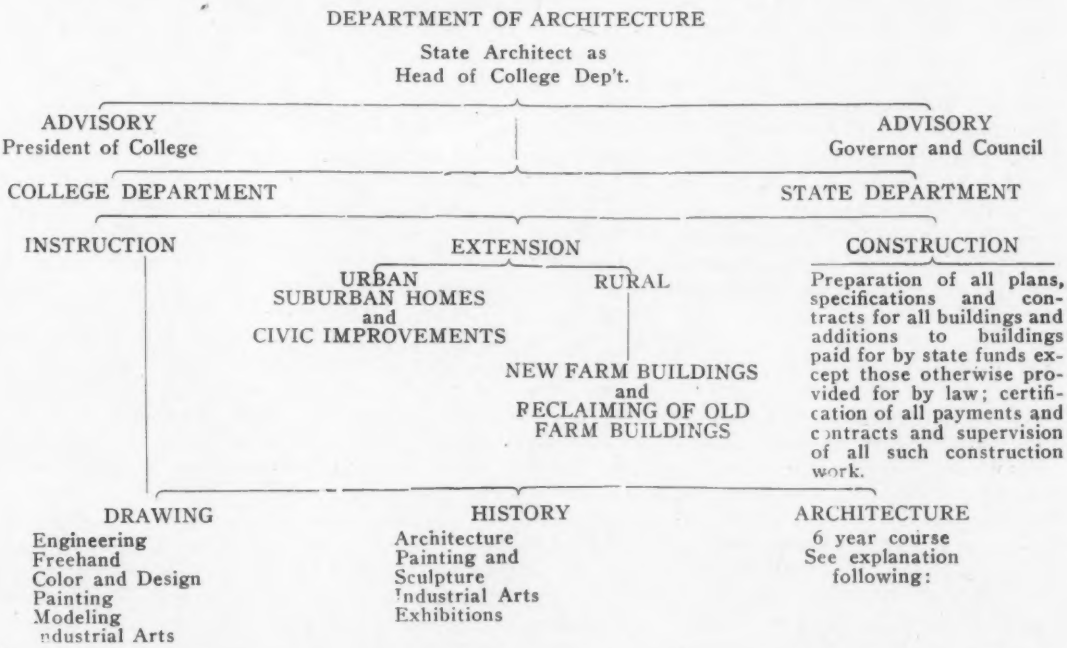
summer vacations as conditions will permit, sketching, measuring details and studying executed work. From that time on, the student should then be introduced into the state department and given such duties as would ordinarily fall to the apprentice, at the same time carrying on his academic work.

A proper co-ordination of these two activities is possible whereby the student can very rapidly grasp the routine of an architectural office, understand the different processes that go to make the finished product and at the end of the fourth year, he should have completed his normal academic work and be in a position to render a real service in the department office.

I suggest that the course should be of six years rather than of four in that there seems to be no doubt but what heretofore students have been rushed through their school training at too rapid a rate and dumped into the profession in a rather bewildered state of mind. The fifth and sixth year spent in the department office on state work, supplemented with advanced study in design, engineering, or whatever phase of the work he is best suited to follow, will give him an equipment that will go far toward meeting the criticism that is now directed against the school graduates.

On the other hand, the state is receiving the assistance of these men for two and three years. The overhead expense of doing this state work is partially absorbed by this assistance and by the co-operation with the college department in utilizing the same men as teachers who will have charge of the actual work in the state department.

This economy holds true all the way down from the head, who can well be the state architect in charge of the two departments, to the stenographer and where, in the present schools of architecture, the effort expended on design and drafting is wasted as a commercial product, by proper coordination of work in class room and department office and supervision of advanced student over those of less experience, much of that effort that has for its primary object the training of the student as a draftsman and architect can be turned into an asset that will show a credit for the state work.



The profession in general will be greatly benefited by such a program in that the instruction given to the students who are afterwards to carry on the work of the architect will be given by practical men who are in touch with the progress that is being constantly made in methods and materials and thoroughly acquainted in all details pertaining to the practice of architecture as a profession.

The school will be benefited by the closer relations that would prevail between it and the building interests of the state which now have very little to attract them to the state college, while both the school and state will receive the benefit of the saving that such a department can make in the institutional construction work and in the increased efficiency

in the training that can be offered to the men and women of the state in not only architecture as a profession, but also architecture as a cultural study which now is being denied to the larger proportion of college students.

Recent English Housing and Town Planning Legislation

ENGLAND in her housing and town planning legislation is becoming more and more mandatory and socialistic. To prove this, F. B. Williams, in the *American City*, shows that in the recent amendments of her "Housing, Town Planning, etc., Act, 1909," "Housing, Town Planning, etc., Act, 1919," and "Housing (Additional Powers) Act, 1919," she supersedes the clause in the older law empowering local authorities to do necessary housing and town planning, by clauses compelling them to do so, incidentally enlarging their already considerable powers to that end, and also agrees to pay, with State funds, a portion of any loss they may suffer in so doing; and grants individuals a subsidy on houses built. This is written in no spirit of criticism. The failure of local authorties to undertake essential housing, and the apparent impossibility of obtaining anything like sufficient private funds for the purpose, in this crisis, seem in England to have left no other course open.

The housing provisions in this recent legislation make it the duty of the local authority to prepare within three months a scheme adequate to the local needs for the housing of the "working classes," which has been held to mean, in this connection, those of limited means and for slum clearance schemes when necessary. These schemes, when approved by the national authorities, the locality must carry out within a reasonable time. If the local authority fails to perform either of these duties the national authorities are given the power to act in its stead and at its expense. Any loss to be suffered by the locality the nation repays in full, less the proceeds of a tax to be levied by the locality, or a penny (two cents) in the pound; or, in the case of housing by the county of its employes, the nation pays 50 per cent. of the annual loan charges until April 1, 1927, and 50 per cent. thereafter. Powers are conferred upon localities and their previous powers increased to borrow, to acquire, sell, lease and develop land, providing for incidental industries and the amenities, and to lend to individuals, to assist limited dividend corporations for low-price housing and garden city developments, etc.

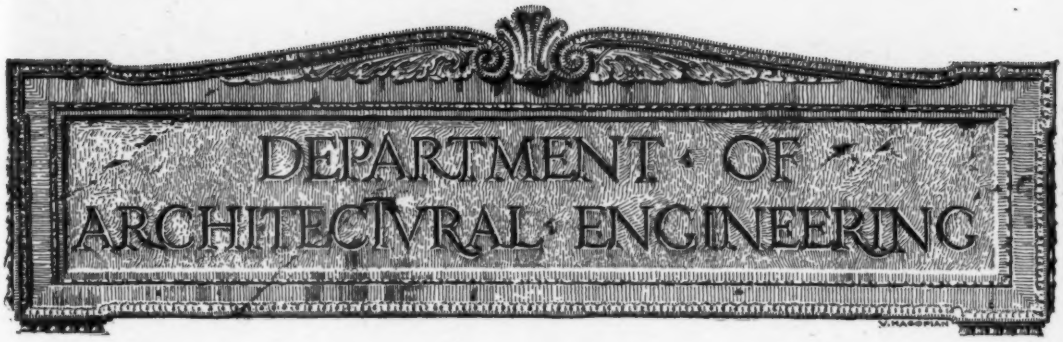
The Minister of Health is empowered to make grants not to exceed in the aggregate £15,000,000 to persons constructing suitable low-priced houses within twelve months. Building operations which interfere with the provision of new dwellings, and the demolition of existing dwellings, may be forbidden.

Grave as the crisis is, England has not forgotten the lesson taught by the war, that dwellings and their surroundings must be pleasing in appearance. The law requires that schemes for housing shall take into account, and so far as possible preserve, existing erections of architectural, historical or artistic interest, and shall have regard to the natural amenities of the locality. The State may also require for the work the selection of an architect from a panel of the Royal Institute of Architects.

In the provision for compensation for slum areas and buildings condemned, England has adopted the principle, which, startling in its novelty and radicalism as it seems to us, has long been a part of one or two housing laws of continental Europe, that improvements, so called, which are so unsanitary as to be unfit for use, according to existing standards, should not be paid for. The amount to be given the owners of land and buildings condemned in such cases "shall be the value at the time the valuation is made of the land as a site cleared of buildings and available for development in accordance with the requirements of the building bylaws for the time being in force in the district;

"Provided that if in the opinion of the Local Government Board it is necessary that provision should be made by the scheme for the rehousing of persons of the working classes on the land or part thereof, when cleared, or that the land or a part thereof when cleared should be laid out as an open space, the compensation . . . .shall be reduced" in accordance with certain provisions of the act.

In town planning, as in housing, the recent legislation changes optional provisions into mandatory ones, and local authorities with a population of over 20,000 are now required to prepare planning schemes within three years, submit them to the national authorities and carry them out, on pain of having the nation act for them at their expense.



Interesting Features in Foundation and Roof Construction

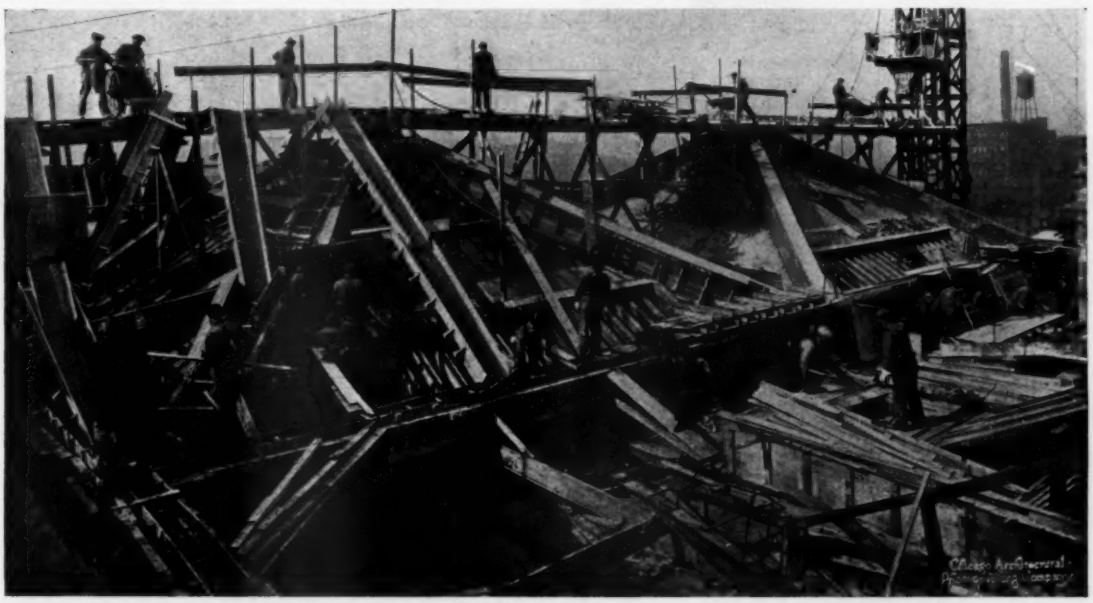
Building for Stromberg Motor Device Company

N. MAX DUNNING, *Architect.* LIEBERMAN, KEIN & HEIN, *Engineers*

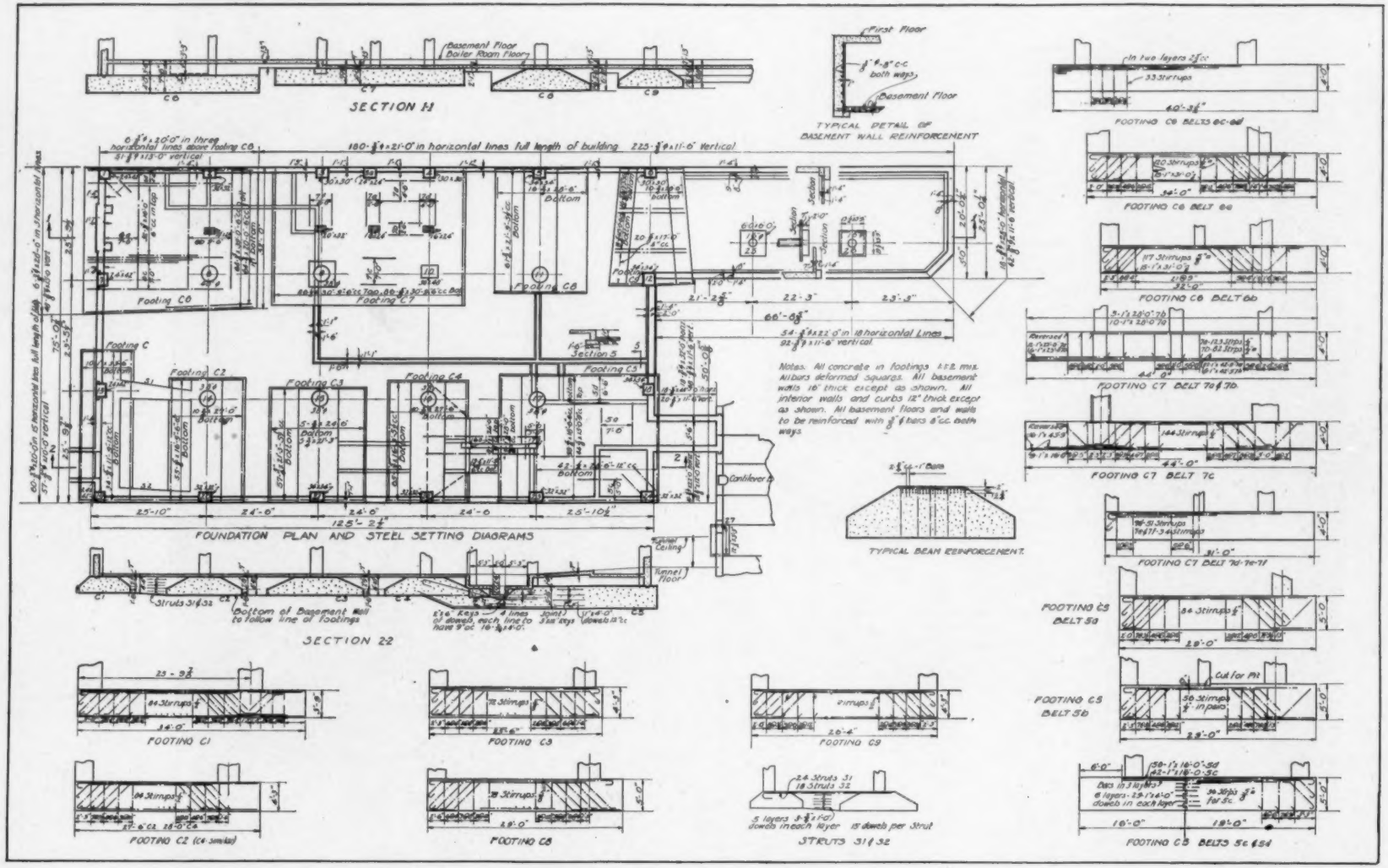
THE building recently erected for the Stromberg Motor Device Company, Chicago, presents some interesting features. These are in the two extreme parts—the foundation and the roof.

The development and improvement of building foundations is but little appreciated by those who cannot recollect the old time foundation piers and walls made of great flat stones, or stepped up brick work. These foundations were so cumbersome that valuable space was occupied and the modern basement was unknown. With the introduction of columns in the exterior walls, the earlier type of continuous foundation wall was displaced by isolated footings.

The introduction of concrete, made possible com-

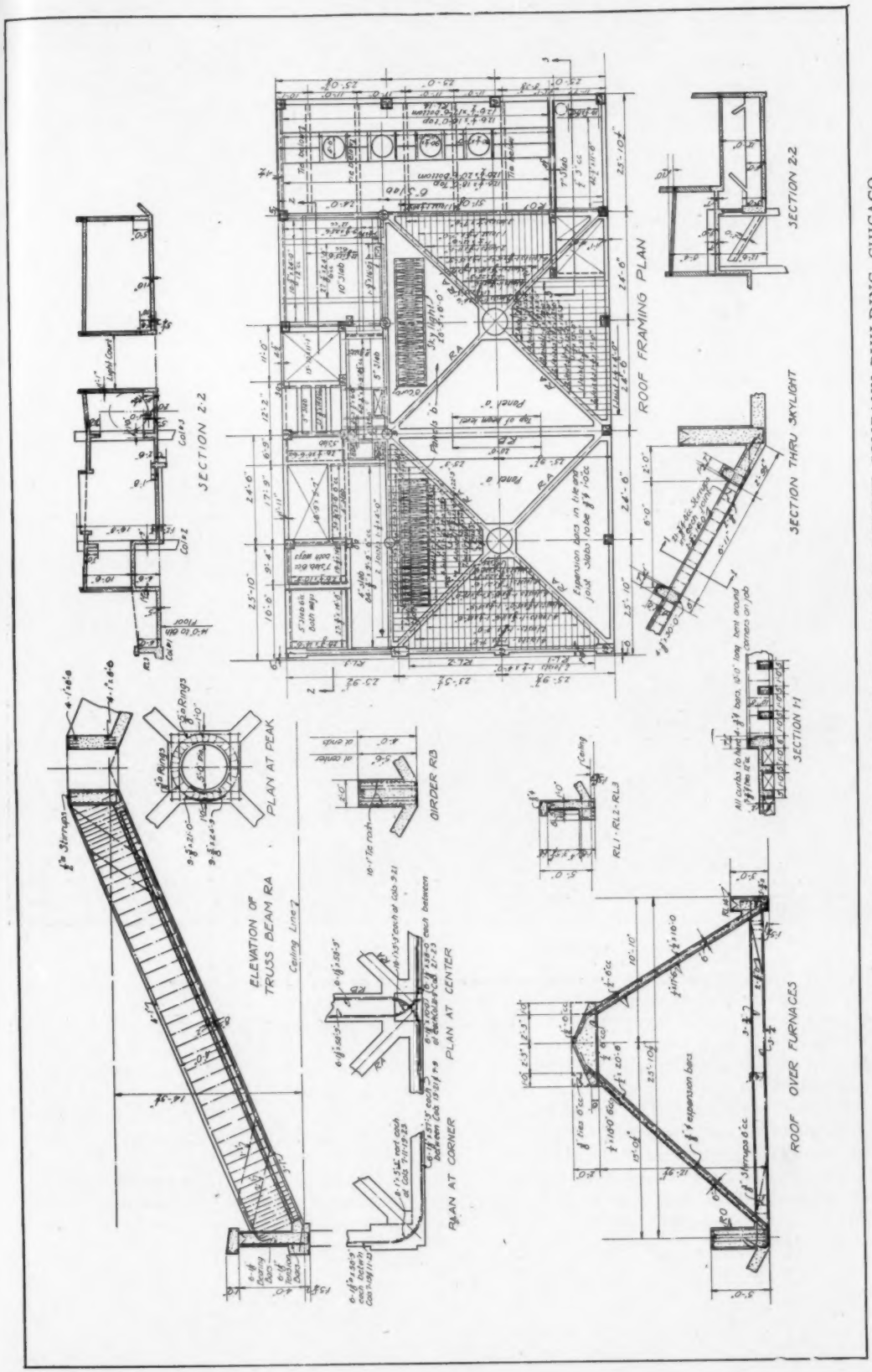


UNUSUAL ROOF CONSTRUCTION—NOTE REINFORCED CONCRETE HIP GIRDERS
N. MAX DUNNING, *ARCHITECT.* LIEBERMAN, KLEIN & HEIN, *ENGINEERS*


SECTION H
Basement Floor
Boiler Room Floor
TYPICAL DETAIL OF BASEMENT WALL REINFORCEMENT
First Floor
Basement Floor
FOUNDATION PLAN AND STEEL SETTING DIAGRAMS
SECTION 22
TYPICAL BEAM REINFORCEMENT
Notes. All concrete in footings 1:3:6 mix. All bars deformed squares. All basement walls 16" thick except as shown. All interior walls and curbs 12" thick except as shown. All basement floors and walls to be reinforced with ⅝" ϕ bars 8" c.c. both ways.
FOOTING C6 BELTS 6C-6d
FOOTING C6 BELT 6e
FOOTING C6 BELT 6b
FOOTING C7 BELT 7d & 7b
FOOTING C7 BELT 7c
FOOTING C7 BELT 7d-7e-7f
FOOTING C5 BELT 5a
FOOTING C5 BELT 5b
FOOTING C1
FOOTING C3
FOOTING C9
FOOTING C2 (4 similar)
FOOTING C8
STRUTS 31 & 32
FOOTING C5 BELTS 5c & 5d

FOUNDATION PLAN AND DETAILS OF REINFORCING, STROMBERG MOTOR DEVICE COMPANY BUILDING, CHICAGO

N. MAX DUNNING, *ARCHITECT*. LIEBERMAN, KLEIN & HEIN, *ENGINEERS*



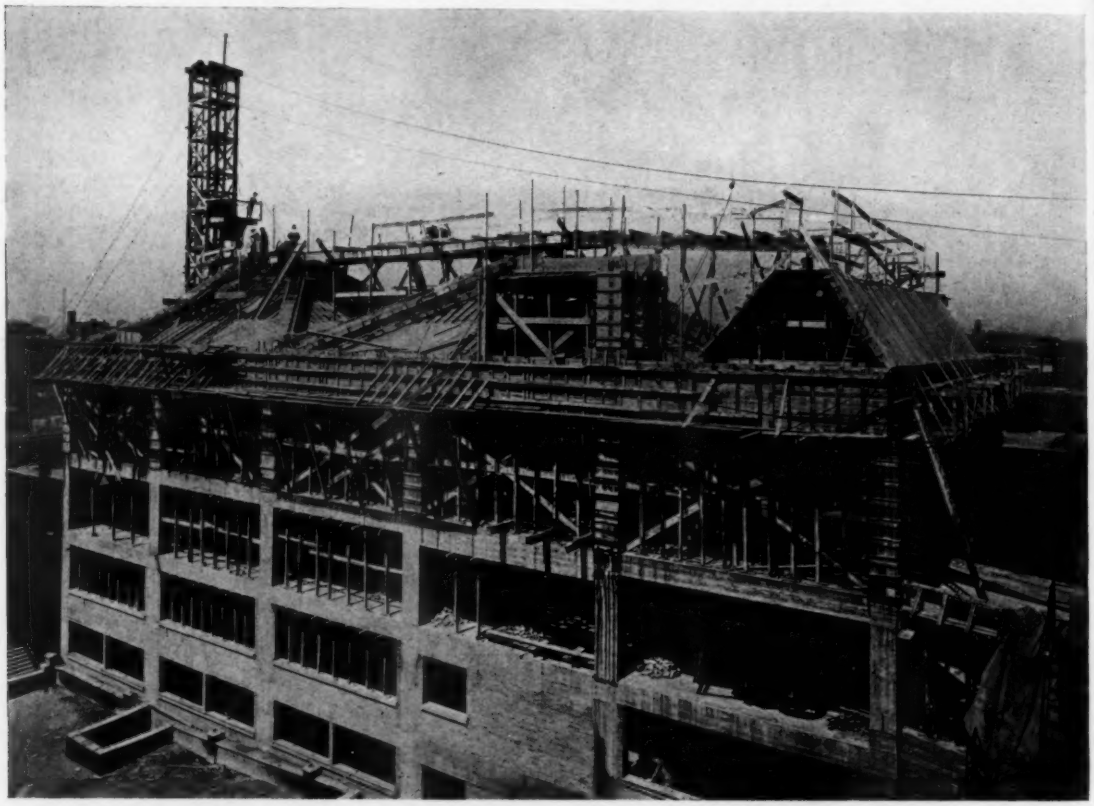
ROOF PLAN AND DETAILS OF CONSTRUCTION, STROMBERG MOTOR DEVICE COMPANY BUILDING, CHICAGO

N. MAX DUNNING, *ARCHITECT*. LIEBERMAN, KLEIN & HEIN, *ENGINEERS*

mercially by the production of American Portland cements, displaced the old time foundation stones and later the huge piers. The concrete, however, was used in combination with a steel grillage. When wrought iron, and later steel, was scarce and expensive, the use of second-hand railroad rails for grillage purposes was common. These sections were not economical from an engineering standpoint, owing to the disproportion of weight and depth, but I beam sections at that time were manufactured in limited quantities and were very expensive. Thus the use of old rails continued for some time.

In the later '80's the production of steel structural shapes caused the universal use of I beam sections for the foundation grillage. The use of materials in such was not the most economical, since the steel sections were depended upon to resist the stresses of both tension and compression, the enveloping concrete being considered merely as a filler and as protection to the encased steel. The value of concrete in compression was neglected. Foundations extended beyond street and alley lines and when placed along party lines, expensive cantilever construction was often necessary.

During more recent times the introduction of reinforced concrete has changed the whole character of foundation design and construction. The value of concrete in compression is now utilized. The steel reinforcement is disposed of in almost every conceivable manner, without disproportionate expense, and in connection with the initial semi-fluid condition of the concrete almost any desired shape is possible.



VIEW OF BUILDING IN COURSE OF ERECTION

Special roof construction required, due to occupancy of top story as a brass foundry

In the building here illustrated, the foundations are entirely within the property lines, except a small projection along the street front. The individual foundation slabs each support two or more columns and in one case these are connected by struts. (See footings C1 and C2). It will be noted that the footings so connected were not poured in one operation, but that the joint in the struts was made secure by the use of steel dowels. The simplicity with which

footings at different levels can be connected is well exemplified in the case of Footings C4 and C5. (See foundation plan and section 2-2). This is a good example of the ease with which the almost insurmountable problems of former times are solved by the use of reinforced concrete.

THE top story of this building is used as a brass foundry. It was found desirable to make the roof in the form of pyramids with an opening at the apex for the escape of the fumes and gases. In order to preserve an unbroken surface in the ceiling, that is a smooth inner surface, the supporting ribs were placed above the roof line. The roof slabs are of the combination tile and concrete joist type. They are supported by the hip girders and the horizontal girders. The horizontal component of the hip and slab thrust is resisted by reinforcing placed in the horizontal girders. The ring at the opening at the apex, which has an inside diameter of 5 feet, is reinforced, as indicated for the stresses developed. In this case the combination slab between the reinforced concrete ribs and girders acts in the capacity of a roof slab only, having no induced secondary stresses to resist. Each pyramid contains a skylight, 6 feet by 28 feet 9 inches on one side to provide additional natural illumination for the central portion of the top story.

The roof over the furnaces is constructed of inclined solid concrete slabs, and in the ridge four circular openings, each 4 feet 6 inches in diameter, are provided for the escape of the fumes. In this case the slabs act in a manner similar to the compression members of a truss, as well as roof slabs. The method of forming and handling the concrete is shown in the illustrations.

An Improved Method of Driving a Precast Pile

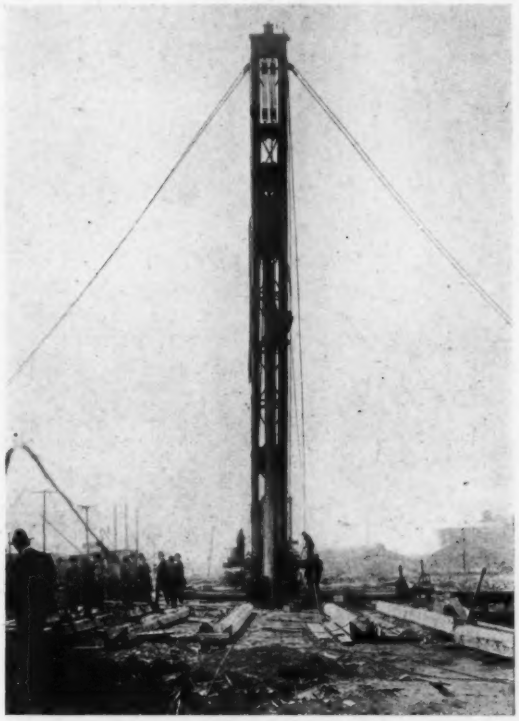
IN order to demonstrate the merits of an improved method of pile driving used in connection with the Giant precast concrete pile, several test piles were recently driven at Long Island City, N. Y., before a number of engineers and others interested in this phase of building construction.

The piles used in this demonstration were cast last winter during freezing weather, the temperature averaging 27 deg. F., maximum being 33 deg. and minimum 20 deg. All piles showed frost marks upon the surface, and the concrete, where fractured, showed little cleavage through the stone aggregate, the adhesion of cement to aggregate generally having failed. Such fractures were made for the purpose of examining the condition of the interior of the piles.

The composition of concrete mix by volume was Portland Cement, 1 part; sand, 2 parts; ¾ in. to ¼ in. crushed trap rock, 4 parts.

The mix was made sufficiently wet to flow into place. The time of setting was greatly retarded by low temperature, and, for this reason, forms were kept in place for six days.

The piles are made with a cast iron point, 21 in. square, containing interior webs around which webs the reinforcing bars are looped. These loops are 2 ft. in length. The reinforcement, consisting of four bars ⅞ in. square, cold twisted, extended the entire length of each pile and projected 2 ft. from



PRECAST CONCRETE PILE BEING DRIVEN

the pile head. Four additional bars of the same size, and likeness looped around the point webs, extended up 6 ft. above the point. No spiral or other horizontal reinforcement was employed.

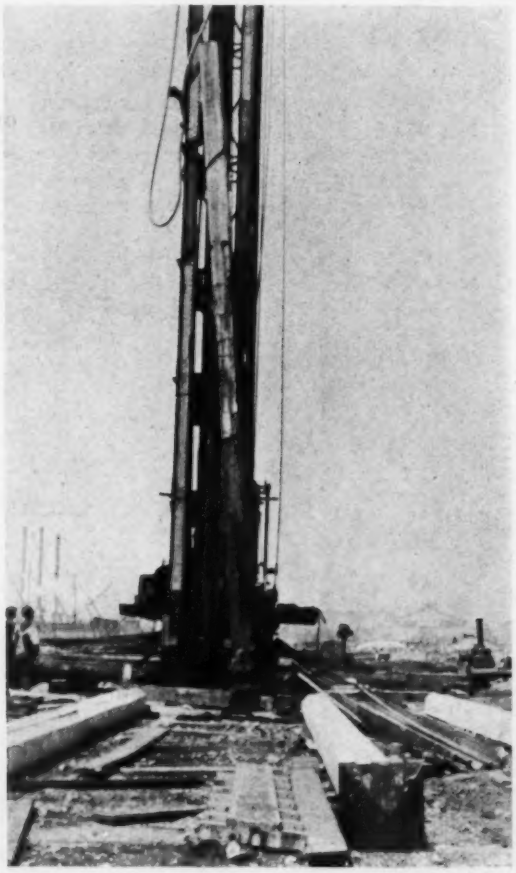
Each pile was 16 in. square with corners chamfered 4 in., and 44 ft. long from tip of point to head. They were handled with a single line attached to a chain looped around the pile approximately 12 ft. from the head.

Borings made prior to the driving showed the subsurface strata to be of the following nature:

Fill, 13.5 ft.; stiff blue clay, 10 ft.; silt, 3 ft.; com-

pact fine blue sand, 8 ft.; hard clay, 6 ft.; sand and clay, 1 ft.; rock.

The hammer used was a double acting steam ram, total weight 12,000 lbs., giving a striking force of 15,600 ft. pounds per blow. It was operated at a pressure of 100 lbs. from a 60 H. P. boiler, giving at final penetration 110 strokes per minute, or approximately 1,660,000 ft. pounds per minute. The unique feature of the driving is that the hammer force is transmitted direct to the cast iron point by exterior driving members on two opposite sides of the pile, causing the pile to be pulled into the ground without reception of the driving force upon the concrete portion of the pile. Thus the driving produces no damaging effect to the concrete. During the process of driving, the pile bears a superimposed load of approximately 26 tons.



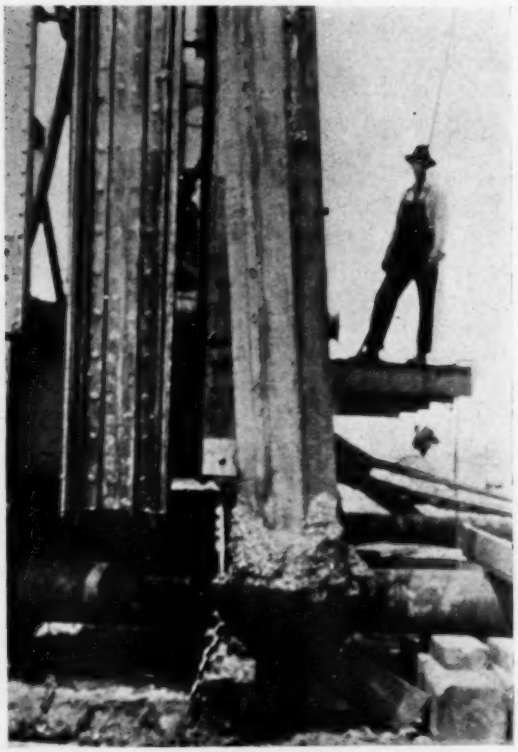
WITHDRAWING ONE OF THE TEST PILES

A penetration of 26.5 ft. to sand was obtained in approximately four minutes in the case of each of three piles driven, very few hammer blows being required due to the heavy superimposed loading.

Upon reaching the sand stratum, approximate refusal was indicated. The first pile was driven into this sand to a depth of 6.5 ft. making the total penetration of this pile 33 ft. Final penertation was 565 blows per inch, the driving being continued for about one-half hour after refusal was indicated, during which time the penetration decreased from 30 blows per inch to that given.

The second pile was driven to a depth of 4.5 ft. into the sand stratum, total penetration being about the same as with pile No. 1.

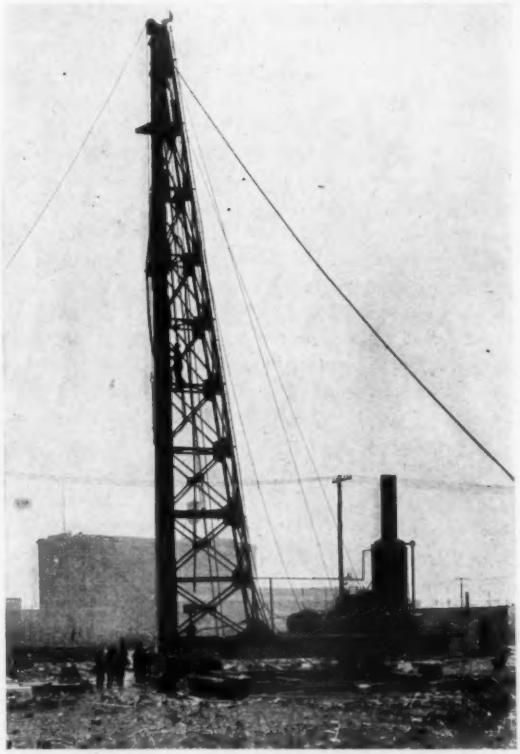
Pile No. 3 was driven with hammer assisted by a water jet delivering 350 gals. per minute at 200 lbs. pressure. No advantage could be noted from the use of the jet. Driving was stopped at 60 blows per inch of penetration.



CLOSE UP VIEW, SHOWING CONDITION OF C. I. DRIVING POINT AND CONCRETE

An effort was then made to withdraw these piles for examination. Twelve parts of ¾ in. steel cable were used with a 60 H. P. engine. Pile No. 1 could not be moved and fractured in several places above ground from the applied strain. A heavy water jet was used to loosen the earth about pile No.

2 to a depth approximately down to the sand stratum which refused to yield to the water pressure. The same pulling tackle was then applied. After repeated efforts, the pile was moved slowly upward for a distance of 12 ft. when a crack developed at the point of contact of the chain, followed by failure of the lifting tackle and settlement of the pile back into place. The pulling stress being again applied, the pile was lifted out, two additional



ALL METAL PILE DRIVER AND 60-H.P. ENGINE.

chains being looped around the pile and all three engine drums being utilized. The pile was found to be intact, except where the chains were attached, at which point it was spalled and partially cracked through.

Efforts to withdraw the third pile resulted in its destruction. A heavy water jet was used in combination with 14 parts of steel cable attached to the engine. The pile was finally pulled apart before it could be entirely withdrawn.

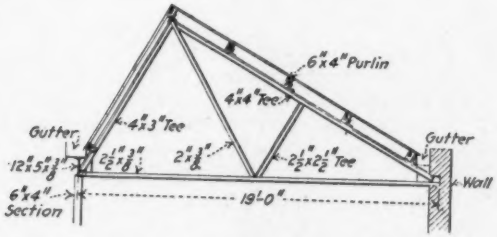
Close inspection of the points of these piles and the concrete immediately above the point showed both the points and the concrete to be uninjured.

The accompanying illustrations show both the driving and drawing processes. The pile driver used is constructed entirely of steel.

Arc Welded Building in Course of Erection in England

A FACTORY building is being erected at Brixton, England, by the electric arc welding process, according to the *Engineer*, London, England. The factory which, when completed, will cover an area of 22,000 sq. ft., is to be one story high enclosed with brick walls. The roof will be a welded roof of saw-tooth construction. A total of 93 trusses of the type shown in the accompanying illustration will be used.

Vertical H-shaped steel columns are arranged in lines at about 22 ft. centers and support 5 by 12-in. steel joists. Some of the trusses are fixed immediately over the columns, while the others are carried by the joists, being fixed to the lower flanges of the latter midway between the posts.



ARC WELDED ROOF TRUSS FOR SAWTOOTH CONSTRUCTION

Where the walls come, of course, the ends which are not supported by columns or joists rest on the brickwork.

The method of procedure employed is, first of all, to weld to the ends of each column a cap and a baseplate. They are then erected in line on concrete foundations, the concrete being carried up for some distance above the base-plate. When the concrete is firmly set the H-joists are hoisted upon the column cap plates, where they are held in position by special clamps, which insure their correct placement. They are then welded. The trusses are welded separately at ground level, and when completed are lifted into position and welded to their supports. In the case of those trusses which come midway between columns, angle iron cleats are used to form the junctions between the trusses and the joists. One cleat is welded to each joist before the joists are hoisted into position, so that it is quite simple to make the trusses assume their correct position and to clamp them there while the welding proceeds. Similar cleats are welded to the ends of the trusses while the latter are being constructed, so that when placed in position there is a cleat on each side of each end of the trusses and all the

cleats are welded to the trusses and to the joists, thus making a good strong job.

The various parts which go to make up a complete truss are assembled in a horizontal position in simple but effective jigs made on the site and the various joints are arc-welded on the A.W.P.—Alloy Welding Process, limited system, alternating current being used. Fillet welds are employed for the most part, though in some portions butt welds are required. No scarfing or bevelling is resorted to and no pains are taken specially to clean the parts which are to be welded. Where all the necessary joints on one face of a truss are welded the truss itself is turned over so that welding may be continued on the joints on its other face. For the latter operation a jig is not required, since the welds on the other face keep the various parts accurately in position. When completed each joist weighs about 3 cwt.

It is stated that one welder and one laborer having the materials cut to length, can assemble and weld complete one truss in an average total time of 1½ hr., and attain an average output of over five complete trusses in one 8-hr. day.

The current comes on the site at 6,000 volts and is stepped down to 200 and then again to 70 for the welding circuit, in which a reactance coil is inserted. The electrodes which are employed are of mild steel, flux coated.

Answer to Capper Resolution

REPORT OF FOREST SERVICE STATES THAT HIGH PRICES GENERALLY WERE BROUGHT ABOUT BY ECONOMIC CONDITIONS.

FINDINGS of the United States Forest Service in its investigation of the lumber industry and prevailing prices, conducted in accordance with the Senate resolution, were submitted to the Senate recently. From this it would appear that high prices generally were brought about by economic conditions. The official report exploded the charges of Senator Capper, of Kansas, author of the resolution, that a group of men controlled the lumber market and artificially enhanced prices. Warning was sounded, however, of the probability of a natural monopoly in high-grade softwood lumber. The investigators were of the opinion that the car shortage and timber depletion have been chiefly responsible for the advance in lumber prices.

The report was submitted to the Senate by Secretary of Agriculture Meredith, together with his recommendations as requested in the Senate resolution. The Secretary urged legislation designed to carry out the forestry program long advocated by the Forest Service. It is to be hoped that legislation to this effect will be enacted.

Some outstanding facts reported by the Forest Service are:

1. That three-fifths of the original timber of the United States is gone and that we are using timber four times as fast as we are growing it. The forests remaining are so localized as greatly to reduce their national utility. The bulk of the population and manufacturing industries of the United States are dependent upon distant supplies of timber as the result of the depletion of the principal forest areas east of the Great Plains.

2. That the depletion of timber is not the sole cause of the recent high prices of forest products, but is an important contributing cause whose effects will increase steadily as depletion continues.

3. That the fundamental problem is to increase the production of timber by stopping forest devastation.

The two striking effects of timber depletion already apparent are:

1. The injury to large groups of wood users and to many communities resulting from the exhaustion of the nearby forest regions from which they were formerly supplied; and

2. The shortage of timber products of high quality.

* * *

INITIATING NEW PRICE LEVELS.

In the Middle West, the building grades of white pine lumber cut in Michigan, Wisconsin and Minnesota, retailed at $15 to $20 per thousand feet prior to 1900. As lumber from the Lake States became exhausted and Southern pine took over this market, the retail prices rose to a level of $25 to $35 per thousand feet. The replacement of Southern pine by West Coast timbers now in progress is initiating a new price level of about $80 to $85 per thousand feet. The increased cost of transportation is but one factor in these new price levels, but it is an important one. The freight bill on the average thousand feet of lumber used in the United States is steadily increasing.

Sand and Gravel in 1919

Approximately 60,196,000 short tons of sand and gravel of all grades was sold in the United States in 1919, according to preliminary estimates made by L. M. Beach, of the United States Geological Survey, Department of the Interior. This quantity represents a decrease below that sold in 1918 of about 1,628,000 tons. The value in 1919, however, was $37,819,000, as compared with $37,927,079 in 1918, which shows that the average price had increased. Demand was heavy, but production curtailed.

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Current News

Happenings and Comments in the Field of Architecture and the Allied Arts

Mr. Gilbert Explains the Woolworth Building

"The dinner held in honor of Mr. Cass Gilbert," says *The Architect* (London), was a very pleasant function, and the president welcomed Mr. and Mrs. Cass Gilbert in a most felictous little speech. Mr. Cass Gilbert, *The Architect* goes on to lay, like most men who have made a deserved reputation, preferred to say little about himself and a great deal about an object which all good Americans have very near their hearts—the real union of feeling and aims which override the superficial differences between the English-speaking nations, whose effective co-operation with that of France can more than anything else secure the future peace and happiness of two hemispheres. Mr. Cass Gilbert, who had been fairly cornered by indiscreet disclosures, was prevailed upon to show and explain a very interesting series of slides illustrating the Woolworth Building and other of his works. It should be difficult to say how the governing conditions of the problem could have been altered, and Mr. Gilbert's confreres must feel that it does not do to condemn what is a simple and natural outcome of overwhelming economic and local conditions, but to consider how, given those conditions, a problem has been solved. We agree with the architect in holding that the choice of a Gothic meter for a building whose lines are so predominantly vertical was a natural and happy one, and much of the detail which is based on the secular mediaeval buildings of Bourges is distinctly characteristic, and good in form and scale.

Plans Filed in Manhattan During July

The report of building operations as given out by the superintendent of the Manhattan Bureau of Buildings shows a decided increase for July of this year, as compared with the same month of 1919. Plans were filed last month for 575 new structures, involving an estimated outlay of $73,652,258, against 219 buildings costing $28,053,061 last year. The tendency of building on Manhattan Island is shown in a striking way by the fact that among the plans filed there was but one apartment house to cost $2,500,000 and one dwelling to cost $120,000. The rest of the program is three loft structures, five theatres, and one hundred and fifteen garages.

Applications for alterations to 2,759 buildings were filed, estimated to cost $26,993,893. For the same month last year there were 2,189, costing a total of $14,200,361.

Omaha Tenants Form Corporation

The Omaha Tenants Protective League plans to form a corporation for the ownership of apartment houses, the capital to be furnished by the tenants. The proposition as it now stands is that each member of the league will subscribe for a certain amount of stock, paying for his subscription at the rate of $10 a month. The capital invested would pay a 6 per cent. dividend and the apartments would be rented on a basis of this dividend, making allowance for depreciation and expense.

Sunny Cells in Joliet

Sunlight for every cell and individual washbowls with hot and cold water are conveniences to be found within the new cylindrical State prison at Statesville, Ill., says the Boston *Transcript*.

The prison house, first of its kind in the world—says this paper—gives one the impression upon entrance of being in an aviary. Every cell has been provided with ninety minutes of sunlight through a skylight, which has been accomplished by a slight curve in the skylight planned by Forest R. Moulton, professor of astronomy at the University of Chicago.

There are 248 cells, all alike, built of concrete, with cork insulation in the walls. In the center of the prison is a tower, from which the guards can watch the movements of all prisoners. The building is surrounded with a circular wall of concrete 33½ feet high.

New Zealand Will Develop Water Power

Among the hydroelectric developments undertaken on a national scale are those of the New Zealand Government, which plans the expenditure in the immediate future of about $24,000,000 for the development of a large station south of Auckland. Here

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it is expected to produce about 160,000 horsepower. The erection of the dam will form a lake 18 miles in length. Its construction will cover a period of three years. The dam will be 160 feet high, 48 feet at the base and 16 feet at the top; the requirements for cement are estimated at 65,000 tons.

This Government has recently taken over the hydroelectric plant at Cambridge and will expend about $7,750,000 in its development.

In the south of the island a new electric power plant is planned, which will require an expenditure of nearly $5,000,000. An appropriation has been made for the purchase of additional machinery to develop the capacity of the plant near Christchurch, amounting to $1,125,000.

Meeting of Board of Jurisdictional Awards

At the meeting of the Board of Jurisdictional Awards held in Atlantic City early this month, Mr. Robert E. Kohn, of New York, is reported as saying:

"The situation in New York with respect to materials is serious. Materials simply cannot be obtained at any price. If an attempt were made to carry out the building program now contemplated in New York, a snag would be found at every turn.

"Building now is being generally discouraged and I don't know where it is all going to end. If the material were available we couldn't get the money. They talk about the shortage of houses and the housing problem. How can we supply houses? We can't supply them. Money is now so valuable it is not going into houses."

Dividing the Consumer's Dollar

A significant tabulation of costs to the consumer has been presented at the World's Advertising Convention at Indianapolis by the Ingersoll Company. The purpose is to establish a conclusion as to the evolution of costs of manufactured articles from the original cost to the cost to the consumer. The table is said to be the most extensive study of costs and prices in all lines ever arrived at, and was submitted to the convention as "the most authoritative subdivision of the consumer's dollar which has yet been made."

For each average one hundred dollars expended for finished products by the consumer, the following proportions were arrived at:

Manufacturer's cost to produce, $37; manufacturer's cost to sell, $12; manufacturer's profit, $4; wholesaler's expense of doing business, $10; wholesaler's profit $3; retailer's expense of doing business, $28; retailer's profit, $6.

That is to say, when the consumer purchases goods which cost $37 to manufacture he pays $50 for the transmission of the goods, and also a profit of $4 to the manufacturer and a profit of $9 for the use of this expensive machinery of transmission.

A Victory Over Billboards

The Bronx Parkway Commission, New York, is to be given credit for its accomplishment in the Bronx River Valley—first, by reclamation of the land for a parkway, and second, in the successful elimination of long rows of ugly billboards.

As to the suppression of these billboards, The American Magazine of Art quotes Mr. W. W. Niles, vice-president of the commission, as follows: "The Bronx Parkway Commission secured title to the property by purchase and immediately thereafter demolished the billboards. The commission was not able to accomplish anything by way of public sentiment except with regard to certain billboards which were maintained by and were upon the property of the New York Central Railroad Company. Upon the demolition of the adjoining billboards upon the lands of the commission, we presented the matter to the railroad company and, yielding to our urgent demands, they caused the billboards upon their own premises to be removed."

Decentralizing the Construction Division

The word of the Construction Division, Quartermaster's Corps, has been decentralized and will in the future be carried on from district offices located at San Francisco, San Antonio and Washington, D. Co. The sub-divisions will continue under Major C. L. Corbin, administrative officer; Lieut.-Col. L. L. Calver, in charge of Building Division; Lieut.-Col. F. B. Wheaton, Engineering Division; Major R. H. Case, Contract Division, and Major Carl F. von dem Bussche, Real Estate Division.

Advertising Literature of Interest

A series of windows admirably suited to memorial use have recently been completed by the Pittsburgh Art Glass Company, Pittsburgh, Pa. These windows, designed to serve as honor rolls, typify The Crusader, Peace and Victory. In each instance the symbolism has been worked out with artistic skill, the coloring is exactly correct and the purpose of a memorial skilfully carried forward. A more than

usually artistic folder, in color, simply illustrating these windows has been prepared. Architects may have a copy by applying to the Catalog Department of The American Architect, or directly to the Pittsburgh Art Glass Company.

Building Loan Associations

There was no diminishing in the development of building and loan associations during July. In the state of Pennsylvania alone more than twenty-five were chartered, some with $5,000,000 authorized capital stock and others with $2,000,000 or $3,000,000. And a number of old associations filed notices of increase in stock.

It was announced at the annual meeting of the League of Building and Loan Associations, held in Cincinnati, that the assets of such associations in the United States have passed the two billion mark. There are 7,788 associations in this country with a total membership of 4,289,326. The gain in their assets during the past year was $228,000,000—or 12 per cent.

Effort to Save High Bridge, Over Harlem River

The New York Chapter of the American Association of Engineers is opposed to the plan to remove High Bridge in order to improve the navigation of the Harlem River and has petitioned the Board of Estimate, through the chapter's president, R. H. Jacobs, to save the structure. "The American Association of Engineers," says the letter, "believes that High Bridge is a structure of architectural and aesthetic merit and an important monument marking the progress and advancement of the City of New York."

Projected War Memorials

A building to be used as an auditorium and gymnasium which will cost about $225,000 will stand as a Soldiers' and Sailors' Memorial Hall on the campus of the Mount Union College (Ohio). About $75,000 has been already raised.

The 1st Division plans the erection of a monument at Washington to commemorate the men they lost in the war. The survivors have decided upon a monument that will cost $250,000. Practically all of them have donated to the fund and about $60,000 has been pledged. This division, it will be remembered, organized a circus in Germany. Since returning to America the circus has been enlarged and is touring the country to earn money for the memorial.

The Indiana State Legislature has accepted the joint committee report on the State War Memorial Bill. The state will therefore build a $2,000,000 memorial on the grounds now occupied by St. Clark Park and the Indiana Institute for the Blind. The original proposal that the city of Indianapolis and Marion County wer eto contribute $5,000,000 in cooperation with the state has been eliminated.

Decrease of Building in Borough of Brooklyn

As Brooklyn has come to be one of the chief residential sections of New York, it is significant to find that only 1,508 plans were filed in the month of July. In July, 1919, 1,502 plans were filed. As the cost this year was $4,829,898, against $10,855,955 it shows a great falling off in construction work for this year.

The total of the first seven months of this year was $55,412,000, while for the corresponding months of 1919 it was $74,000,000—a reduction of 25 per cent. This is attributed to the shortage of material, the high cost of labor and scarcity of money for building loans.

Low Buildings Pay More Than Skyscrapers

Low buildings erected on expansive lots are more profitable than skyscrapers towering into the air in the opinion of various members of the National Association of Building Owners and Managers expressed at their annual convention in Minneapolis. This is contradictory to the generally accepted theory of realty men.

Reading a paper at one of the sessions on "Analysis of the Comparative Investment Value of Office Buildings of Various Heights," Edwin S. Jewell, of Omaha, an advocate of the low building theory, said that since land values are enhanced by the increase in population in a section and not by the size of buildings on it, structures under 10 stories in height were more profitable in that a saving would be made on the tremendous cost of foundation and enormous elevator equipment.

"If a builder erects a six to eight story building in a part of the city that is the business section," Mr. Jewell said, "and if that business section shifts in a decade or two, the structure can readily be used for a factory, still a marketable building. The same is true of a warehouse, easily used for other purposes. It is not true of the skyscraper.

"When builders begin to erect low building foundations and sub-basements the tremendous amount of money now being used for buildings in our cities can be put into other buildings. The money put into elevators, heavy framework and other incidentals necessary to the erection of a skyscraper would pay for a good, practical office building four to six stories high covering the same piece of ground."

Mr. Jewell, who is chairman of the operating experience committee of the Building Owners' and Managers' Association, also asserted that the low office building plan would spread the business districts of cities over wider areas and raise land values, enabling cities to raise more revenue for schools and other public improvements.

"The low building plan," he said, "would prevent congestion, promote safety and good health and by forcing the spreading of the business district over a wider area, provide more stores, which would result in greater competition and lower prices to the buying public."

News Notes from Various Sources

It is reported that building contracts awarded in states east of Missouri and north to Ohio rivers during the week ending July 30 amounted to $50,420,400. This compares with $39,937,900 for week ended July 23.

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It is announced that the Chamber of Commerce of the United States, by vote July 30, approved of "open shop" in industry, members holding that strikes in public utility operation should be forbidden by law, and that tribunals should be set up with power to fix wages and working conditions for employes of utilities.

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Approximately 15,000 cars were made available for carrying steel under an order from the Interstate Commerce Commission, which declared the priority orders covering coal cars shall not include flat bottom cars with sides less than 38 inches high.

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Dr. Charles Mayo stated on his arrival from Europe that an American hospital to cost several million dollars will be erected in London.

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One-fourth of the estate of Arthur Jerome Eddy is bequeathed to the Art Institute of Chicago with which to encourage by prizes and purchases the production of painting and sculpture, especially decorative and architectural, in America, by native Americans working and residing in this country. The estate is valued at $600,000.

Prof. R. Tait McKenzie, of the University of Pennsylvania, whose exhibition of sculpture has created great interest in London, has been asked to design the war memorial for Cambridge University.

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Seven five-story tenements in the lower East Side of New York have been sold by the Marquis Charles Pierre de Bausset Roquefort. The buildings were the property of the family of the marquis for eighty years.

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A national organization of engineers, civil, mechanical, electrical and mining, is being formed which perpetuates the war time engineering council.

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The Executive Council of the A. F. of L. has ordered that the right of assembly and free speech for union labor organizers and sympathizers in the steel making territories of Pennsylvania, Ohio and Indiana be made a political issue the coming fall in every congressional district where steel workers vote.

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The West Coast Lumbermen's Association states the balance of unshipped orders for transcontinental delivery amounts to 6,973 cars.

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The War Department has granted authority for an aeroplane flight from the Panama Canal Zone to Washington, D. C. The attempt will be made by First Lieutenant C. B. Austin.

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Unfilled orders of the U. S. Steel Corporation for the month ending July 31 were 11,118,468 tons. This is an increase of 139,651 over the previous month and is the highest figure since July, 1917.

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French Section of Department of Foreign Information, Bankers' Trust Company, New York, issued statement on France's progress in reconstruction. Gives statistics on various phases of situation.

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Mr. Leroy K. Sherman, member American Society of Civil Engineers, president American Association of Engineers, has resigned as president of the U. S. Housing Corporation to resume private work in Chicago.

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Philadelphia building permits for July amount to $4,726,420—a decrease of $2,016,595 compared with the previous month, and a decrease of $1,897,365 as compared with July of last year.

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Total imports for June, 1920, were $552,875,088 as compared with $292,915,000 for June, 1919. Total exports for the month were $631,082,648.

Weekly Review of the Construction Field

With Reports of Special Correspondents in Prominent Regional Centers

IT is stated in the steel industry that transportation conditions have so far improved that there is now a balance between production and shipment. Stocks of manufactured materials are no longer increasing at the mills and it is expected that in a short time they will begin to show reduction. Not long since many factories were so embarrassed with the accumulation of their production that an enforced closure was imminent, in a few cases necessary.

Great encouragement is felt in the evidence that transportation is beginning to meet its problem. All those who have been held up in their work while waiting for materials are glad to find ground for belief that the worst is over.

This is a change which is felt all up and down the line. The coal mines report a more free supply of cars. The steel mills show not only a balance between production and shipment but a substantially improved production.

Although prices hold about the same, with some expectation that there soon will be further advances, the chief interest of the buyers is for a dependable supply which will allow them to complete jobs without expensive and annoying delays. To this end, improvement in the freight system offers encouragement. It is expected too that the increased earnings of the railroads will enable them to rehabilitate their equipment. They are, in fact, placing orders. And so, very gradually, this difficult tangle is getting straightened out.

Of more immediate interest to those interested in building construction is the proposal before the Senate Committee on Reconstruction and Production made by Daniel Willard of the Baltimore & Ohio, which plans a co-operation between the builders and the railroads. The practical workings of the plan proposed are as follows:

Committees representing the construction industry have been appointed in various districts. In cases brought to their attention, where building material is being delayed, the construction committee will pass upon the necessity for the building and upon the construction committee's recommendation—a committee of railroad officials will see that the material arrives. W. H. Truesdale, president of the Delaware, Lackawanna & Western R. R., will be in charge of all the railroad committees.

APPEARING before the Senate Committee on Reconstruction, Mr. Otto Kahn said that although he did not consider it sound economics he favored the lending of money by the city or the state to relieve the housing situation. He opposed the plan sponsored by Mr. Stabler, comptroller of the Metropolitan Life Insurance Co., that certain mortgage investments should be exempted from taxation in order to stimulate building.

Mr. Kahn spoke most authoritatively upon the subject of taxation which he thought to be a chief cause of the country's halting production. He remarked that men prominent in finance were reluctant about discussing the present system of taxation because their criticism might be thought nothing but the squeal of a rich man against heavy taxes. While as a matter of fact all they have to do is to convert their capital into tax-free securities.

In the way of constructive suggestions, Mr. Kahn said that the excess profit tax should be abolished or essentially modified and some other method devised to tax corporate profits. The extreme scale of surtaxes actually defeats its own purpose and should be revised downward; they must not be so extreme that they cripple production, discourage or prevent normal enterprise, and preclude that accumulation of business and investment funds which is an indispensable prerequisite for material progress and prosperity.

Careful investigation should be made of the question whether means should not and could not be found to prevent further issues of tax-exempt securities, or at least to limit such exemptions, for instance, to normal Federal and State taxes.

(By Special Correspondence to The American Architect)

Seattle.—Building materials will be increased thirty-three and one-third per cent. in price on the Seattle market when freight increases go into effect late this month.

Nails and wire products advanced twenty cents per 100 pounds at the mills for Seattle and other Pacific Coast points last week, but some of the local wholesalers are not raising on their retail prices on these products, and no advances in quotations of any building material is anticipated until the freight raise goes into effect.

Seattle jobbers reported favorable conditions and a brisk demand for materials last week and the only thing holding back a more general movement of materials for new construction is the transportation

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situation. Deliveries, however, show an improvement over the previous week, particularly in sheets and nails. The pipe supply is also better, although heavy shipments of this product are held back by the freight congestion in the East. Several cars of sheet iron and steel have been delivered in the last few days.

Local dealers estimated that the freight increase would mean an advance of approximately fifty cents per 100 pounds in hardware and other material lines. Conditions in roofing, cement and plaster are unchanged, with deliveries still tight. Several shipments of plumbing supplies are also held up by embargoes in the East while en route to this section.

It is reported here that pipe and boiler tubes are much scarcer and that some of the mills are closing down because of the scarcity of cars. There is a tendency here to hold down prices as much as possible as a means of encouraging building construction.

With the volume of business higher than production, district lumber mills were besieged with orders during the week and this activity was attributed to the effort of buyers to have their lumber requirements shipped before the freight increase becomes effective. Many of the orders specified that shipment must be guaranteed before the freight raise, but owing to the scarcity of cars, many of these orders had to be turned down. The flurry of orders received by mills during the week was from eastern lumber yards which wanted general yard stocks. Shingles show a price slump of about $8 per thousand, while fir vertical grain flooring is $2 and $3 lower. Drop siding, flat grain ceiling, boards and shiplap also show price declines.

Linseed oil dropped fourteen cents a gallon in price here this week.

(By Special Correspondence to The American Architect)

Chicago, Ill.—Business and residential demands are absorbing vacant lands in every direction around Chicago at present and plans are still in the making for expansion of many industries. Apparently, prices are not coming down with much of a rush in the very near future, although merchants are proceeding with caution, based on financial conditions. Money rates in Chicago continue very firm. Commercial paper is selling at a shade under 8 per cent.

Lest we forget, some interesting figures have just been published showing the increased cost of living in Chicago since 1914. From December, 1914, to June, 1920, costs of food have increased 120 per cent.; clothing, 205 per cent.; housing, 35 per cent.; fuel and light, 62 per cent.; furniture and furnishings, 215 per cent., and miscellaneous, 87 per cent. Which might indicate that the "rent profiteers" are still somewhat behind the more ambitious in other lines, despite the public outcry that has been made here and elsewhere about increased rents.

Ernest R. Graham, of Graham, Anderson, Probst & White, architects, who has returned from a seven weeks' trip abroad, reports big crops in Europe, but says that housing conditions are in many cases bad, especially in England where the demand for living accommodations exceeds the supply by far. The city of London, he says, is giving bonuses to householders to build.

As to building conditions in Chicago, Mr. Graham says he is uncertain but hopeful that the entire aspect here will change before long. "It is always darkest just before the dawn" was his optimistic remark. No definite word has yet been given as to when the actual construction of the new Federal Reserve Bank building will begin nor the Illinois-Merchants and Corn Exchange National bank be started. The razing of the old structures on the site of the Federal Reserve bank building is about completed.